

**IMPROVEMENT OF TRAFFIC LAW COMPLIANCE IN SOUTH AFRICA:
A KNOWLEDGE MANAGEMENT APPROACH**

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A Knowledge Management Approach

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ABSTRACT

For enforcement of traffic laws in South Africa, proper management of knowledge within and among the issuing authorities and related agencies, private service providers and the prosecuting authority is required. There is a possibility that the absence of effective knowledge management (KM) enabling environment has adversely affected the finalisation of the administration of traffic offences. The objective of this study was to uncover whether and how the application of KM and IKM might increase the rate of successful finalisation and prosecution of traffic offences in South Africa, ultimately contributing to the reduction of the road accident death toll by reducing dangerous and unlawful behaviour by road users. The study explored the understanding of KM in the interorganisational KM context, the issues/challenges being faced in the context, and how these issues/challenges can be addressed by the application of KM and IKM approaches.

I established an interorganisational learning set (LS), premised on the National Action Learning Programme (NALP) that was developed and articulated by Coughlan in 2002. The programme incorporated schedules that were implemented in the participating organisations in a specific period. This approach to action learning had seven steps that addressed different issues within my insider action research. The procedure enabled contributions, reflective listening and responsiveness to each of our individual inputs. I also put appropriate mechanisms in place to allow systematic participation of all the involved participants.

Using this method, we analysed regulatory instruments based on gaps that each LS member identified, as well as explanations of the gaps. Issues that were identified as inadequate and requiring attention were: (i) ineffective collaborations, (ii) misaligned standard operating procedures, (iii) inconsistent application of the law and (iv) absence of oversight over court documents before they are enrolled to the court register. In this regard, prosecutorial satisfaction was low regarding (i) poor court documents and inefficient leading of evidence in court by traffic officers and (ii)

unavailability of expert witnesses. We traced the origins of these inefficiencies to inadequate KM processes and lack of an enabling oversight mechanism. The inefficiencies of KM processes within the responsible organisations were found to be related to ineffective collaboration and inadequate IKM enablers.

Persuaded by Botha *et al.* (2008), we proposed that, in addition to the three common KM enabling factors – culture, infrastructure and technology – a fourth enabler, oversight, was necessary for interorganisational KM. Accordingly, “oversight” rather than “measure” as suggested by Botha *et al.* (2008) is found to be more precise. The “oversight” enabler contributed to improved collaboration and the general compliance to legal and administrative processes across the organisations.

The enactment of an interorganisational oversight mechanism improved the quality and substance of court documents that were enrolled to test the feasibility of the intervention, resulting in all fines being successfully prosecuted and finalised, and warrants of arrest issued.

Through this research, I had the opportunity to engage with my profession and participate systematically in finding a solution to challenges within my industry. I have lived closer to my ethical, social conscience and professional values. I have gained from the explicit value basis that characterises action research as I brought about a situation that is congruent with my value position.

DECLARATION OF OWN WORK

This thesis was written by me and in my own words, except for quotations from published and unpublished sources which are clearly indicated and acknowledged as such.

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South Africa is a signatory to the United Nation's Decade of Action for Road Safety 2011-2020. This thesis is a culmination of my professional experiences and a personal wish to play a meaningful role in the South African government's realisation of its commitment to road safety. I am grateful for the opportunity that my company provided for me to take real workplace-based problems to my learning set for scholarly debates and possible practical solutions. I thank the National Department of Transport's former Director-General, Mr Pule Godfrey Selepe, the Road Traffic Management Corporation's Chief Executive Officer, Advocate Makhosini Msibi, and its Chairman, Mr. Zola Majavu, as well as the Road Traffic Infringement Agency's Registrar, Mr. Japh Chuwe, for their encouragement when the problem statement was proposed to each of them.

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LIST OF ABBREVIATIONS

AARTO	<i>Administrative Adjudication of Road Traffic Offences Act (1998)</i>
AARTO	<i>Administrative Adjudication of Road Traffic Offences</i>
Amendment Bill	<i>Amendment Bill (2017)</i>
CEO	Chief Executive Officer
CPA	<i>Criminal Procedure Act (1977)</i>
Constitution	<i>Constitution of the Republic of South Africa (1996)</i>
DOJCD	Department of Justice and Constitutional Development
IKM	Interorganisational knowledge management
IT	Information technology
JMPD	Johannesburg Metropolitan Police Department
LM	Learning method
LS	Learning set
KM	Knowledge management
Mavambo ITS	Mavambo Intelligent Transport Solutions (Pty) Ltd (the researcher's company)
MAVITS	Mavambo Intelligent Traffic System
NALP	National Action Learning Programme
NDoT	National Department of Transport
NDPP	National Directorate of Public Prosecutions
NRTA	<i>National Road Traffic Act (1996)</i>
NRTLEC	National Road Traffic Law Enforcement Code
R	rand (the currency of South Africa)
RTIA	Road Traffic Infringement Agency
RTA	<i>Road Traffic Act (1989)</i>
RTMC	Road Traffic Management Corporation
RTMCA	<i>Road Traffic Management Corporation Act (1999)</i>
RTMS	Road Transport Management System
SANRAL	South African National Roads Agency Limited
SMS	Short message service
South Africa	Republic of South Africa
State	Republic of South Africa

TCSP	Technical Committee for Standards and Procedures for Traffic Control and Traffic Control Equipment
TCSP <i>Guidelines</i>	Prosecuting Guidelines for Speed Measuring Equipment and Traffic Light Violation Monitoring Equipment (2012)
TMPD	Tshwane Metropolitan Police Department

CHAPTER 1. INTRODUCTION

1.1 Background of the study

1.1.1 *The practical problem*

The South African road accident death toll is very high, so high that not only is it among the highest in the world (World Health Organisation, 2015), it has also been described as “road carnage” by the South African Minister of Transport (Gozhi, 2017). According to the Minister’s statement in April 2017, road deaths account for more than 14,000 fatalities a year in South Africa, costing the economy billions of rand (Gozhi, 2017). In the two decades since South Africa enacted its post-apartheid *Constitution*, the number of vehicles on the road has doubled, according to the Minister of Transport (Gozhi, 2017): the total number of registered vehicles in South Africa on March 31, 2017, was 12,047,404 compared with 11,818,124 in March 2016. The number of registered drivers increased by 507,002 over the same year to 12,283,777. Deaths by road user category in South Africa represent: pedestrians (39%), drivers (4-wheelers) (25%), passengers (4-wheelers) (32%), cyclists (2%), and riders (motorised 2- or 3-wheelers; 2%) (World Health Organisation, 2017).

1.1.2 *The response*

The government has responded to the high road accident death toll by enacting new laws and establishing new bodies and structures to both educate and encourage drivers to obey the road traffic laws as well as to strengthen enforcement of the laws.

1.1.2.1 The legal framework

Two primary Acts of Parliament establish the rules of the road and define offences: the National Road Traffic Act (1996) (NRTA) and the Road Traffic Act (1989) (RTA). In all but two of the country’s 278 municipalities, infringement of traffic laws is a crime, administered under the Criminal Procedures Act (1997) (CPA). The other two municipalities (JMPD and TMPD) take advantage of the Administrative Adjudication of Road Traffic Offences Act (1998) (AARTO), under which demerit points are deducted from drivers who infringe the traffic laws. AARTO was enacted to encourage safe driving, but due to system problems and gaps in the legislative process, as well as problems with the delivery of infringement notices, the national roll-out has been delayed (Peyper, 2016). The National Assembly of South Africa

passed the Administrative Adjudication of Road Traffic Offences Amendment Bill (AARTO Amendment Bill) on 5 September 2017 (National Council of Provinces, 2017). Once this Bill is signed into law, the demerit points system is expected to be implemented nationally.

1.1.2.2 New bodies

Two bodies, the Road Traffic Management Corporation (RTMC) and the Road Traffic Infringement Agency (RTIA) were established by the government to encourage compliance with all road traffic laws. The primary role of the RTMC is to overcome the current fragmentation of traffic management functions across hundreds of provincial and local jurisdictions, as well as to bring new professional coherence and improved morale into the entire system (RTMC, 2017). The role of the RTIA is to forge a closer, more effective and efficient link between the enforcement and adjudication processes (RTIA, 2017).

1.1.2.3 Public-private partnerships

The main bodies involved in the administration of traffic offences are issuing authorities, private companies contracted by them, and prosecuting authorities whose primary function is to assist the court in arriving at a just verdict. Issuing authorities are given the mandate to administer contraventions of road traffic law compliance in South Africa, including issuing notices and fines; typically, the Traffic Department of the municipal government authorities are issuing authorities. Private companies provide the technical infrastructure and back-office support services. This structured approach is designed to optimise the benefits of public-private partnerships. As the Chief Executive Officer of such a private company, my primary role is to ensure that my company provides world-class solutions that enhance effective road traffic law enforcement.

1.1.3 *A possible explanation*

Despite the introduction of this new institutional framework, the road accident death toll continues to rise. The Minister of Transport recently announced that 235 people died on South African roads over the 2017 Easter holidays, a 51% increase over the 2016 figure of 156 (Pijoo, 2017).

The complexity of the framework offers one possible explanation: several organisations of different types need to work effectively together to ensure that traffic offences can be successfully finalised and therefore serve as deterrents to drivers inclined to disobey the traffic laws. In practical terms, this begins with the organisation that records the offences (typically, a private company) and continues up the chain to the organisation that has the legal mandate to issue offence notices (the issuing authority) and to the prosecuting authority, which must make a case for prosecution in court when a fine has not been paid by the due date. At all stages, complete and accurate information must be transferred. All the bodies involved in the process need to understand their own roles and how they relate to the roles of others if they are to collaborate effectively.

At the time this research project began, the administration of traffic offences in the Midvaal municipality, where my organisation provided private sector services to local government, appeared not to be working effectively. The issuing authority was concerned with the low rate of success in the finalisation of traffic offences. While only 13% of traffic fines issued in South Africa in 2015 were paid (Eyal, 2015), my company's records show that Midvaal had a payment rate of 16%. At a meeting of the interorganisational learning set established for this research, the low rate of payment was attributed, at least in part, to the poor quality of documentation provided to prosecutors. This meant that not only was it difficult for the prosecutors to make a case in court but also that it was easy for offenders to argue that inadequate evidence was available to support prosecution. In other words, there appeared to be a sense of impunity; traffic laws appeared not to be obeyed because the authorities were seldom able to bring offenders to account.

Prosecution of traffic offences is governed by several laws and regulations and administered by several organisations which need to collaborate effectively to achieve successful prosecutions. However, the poor outcomes suggested that collaboration was not working effectively. It was possible that the involved organisations lacked an understanding of this collaborative context and its issues/challenges. This was a problem for my private sector firm, not only because I have a personal commitment to improving road safety in South Africa, but also because part of my firm's responsibility is to put measures in place that would

improve the poor quality of court evidence packs has been of concern to the magistrates, leading to at least 20% of the cases being struck off the court roll.

1.2 The research problem

While preparing for the thesis, I was also reading the knowledge management (KM) literature. I was particularly taken by the literature about interorganisational knowledge management (IKM). I wondered if attention to IKM might improve collaboration among the three organisations most closely involved in the prosecution of traffic offences in the Midvaal municipality: my private company, which provides the supply, delivery, installation, implementing and managing of a traffic contravention system as well as the provision of a complete back office; the issuing authority which provides traffic officers who enforce the traffic laws in terms of the *National Road Traffic Act* (1996); and the prosecution team that performs prosecutorial functions in terms of the relevant *Guidelines*. This resulted in my research problem: I sought to understand whether and, if so, how application of KM and IKM might improve collaboration in the prosecution of traffic offences in the Midvaal municipality in a way that could increase the rate of successful prosecution.

1.3 The research objectives

This study aims to explore whether and, if so, how application of KM and IKM might improve collaboration and success in the prosecution of traffic offences in the Midvaal municipality. If successful, the processes developed could contribute to the rate of successful prosecution of traffic offences in South Africa, ultimately contributing to the reduction of the road accident death toll by reducing dangerous and unlawful behaviour on the roads. From a different point of view, there is an opportunity for my private company, in that success has the potential advantage that the company will be recognised as the preferred service provider to issuing authorities. In specific terms, the study seeks to understand the interorganisational KM context, the issues/challenges being faced in the context, and how these issues/challenges can be addressed.

1.4 Theoretical framework

The value of more collaborative interorganisational relationships to the management of knowledge is advocated in the literature by Malhotra *et al.* (2005, 2007) and Cao *et al.* (2010) as well as by Lancini (2015). Collaborative relationships are considered

to be possible when two approaches to IKM, namely, the *integrative approach*, which refers to the codification and storage of knowledge, and the *interactive approach*, which emphasises knowledge exchange, are actualised (Zack, 1999a). The integrative approach facilitates ease of access by experts to codified knowledge, while the interactive approach tries to identify experts and create linkages among individuals in order to facilitate knowledge exchange through direct interactions (Zack, 1999a).

From an organisational capabilities' perspective, Gold *et al.* (2001) argued that the KM process consists of four dimensions: knowledge acquisition, knowledge conversion, knowledge application, and knowledge protection. This model is sufficiently broad to be applied in the interorganisational administration of traffic offences as it emphasises that organisations must develop absorptive capacity, the ability to use prior knowledge to recognise the value of new information, assimilate it, apply it, and protect it to create new knowledge and capabilities (Zahra and George, 2002). The processing of traffic offences is about acquiring the data about the offence, converting the data into actionable records, applying explicit and tacit knowledge to produce prosecutable offence notices and protecting these prosecutable offence notices in the manner legally permissible for possible finalisation.

Understanding the KM process when engaging in an interorganisational knowledge management project requires consideration of the two types of knowledge categorised as tacit and explicit knowledge. Tacit knowledge as that which is internalised and encompasses the experience, understanding, skills and expertise that exist within the organisation, while explicit knowledge as that which is documented, readily available and easy to disseminate (Mostert & Snyman 2007). I will broaden the discussion of this theoretical framework in the literature review chapter (Chapter 3).

1.5 Research themes and research questions

In order to guide my research, including thematic analysis of the empirical data and presentation of the findings, I drew on the substantive KM literature to develop three themes, each with a primary research question and several empirical questions. The first theme relates to the KM resources which incorporate the collective knowledge,

both tacit and explicit, while the second theme relates to KM processes and the third to interorganisational KM. The empirical research questions were the focus of data collection, while the primary research questions were used to structure the findings of the study. They are introduced below.

Theme 1: Identification and classification of knowledge-based resources in the administration of traffic offences in the interorganisational KM context

In line with this theme, the following primary research question and empirical questions were addressed:

RQ 1. What is the knowledge base for the administration of traffic offences in the Midvaal local municipality?

RQ 1.1. Which statutes govern the administration of traffic law offences?

RQ 1.2. What technical and administrative knowledge exists for the administration of traffic laws?

RQ 1.3. Who owns the experiential knowledge necessary for the administration of traffic offences?

Theme 2: Issues in knowledge sharing across the involved organisations

This theme addresses the following primary research question and empirical questions:

RQ 2. How is the knowledge for the administration of traffic offences in the Midvaal local municipality accessed and integrated?

RQ 2.1. How accessible is the knowledge needed for the administration of traffic offences?

RQ 2.2. How is knowledge being shared between traffic offence administration organisations?

RQ 2.3. Who are the knowledge sharers and how often do they share their knowledge?

RQ 2.4. What platforms are used to share traffic offence administration knowledge in these institutions?

Theme 3: Interorganisational KM to facilitate successful finalisation of traffic offences.

The following primary research question and empirical questions were addressed by this theme:

RQ 3. How can interorganisational KM improve the successful finalisation of the administration of traffic offences in the Midvaal local municipality?

RQ 3.1. To what extent has the existing knowledge been standardised or pulled together?

RQ 3.2. How is the knowledge on the administration of traffic laws being processed?

RQ 3.3. How effective is the knowledge management for case finalisation?

I allowed that these initial empirical research questions could be developed or refined at any stage of my reflexive and interactive inquiry journey. As the study progressed, it generated an intervention which had the potential to be transformed and incorporated into a standard operational policy for the successful finalisation of traffic offences. I added a final empirical research question to guide evaluation and reflection on this intervention:

RQ 3.4. How well can the IKM intervention designed to improve the case finalisation support the research objectives?

1.6 Methodology

As an action researcher, I aim to develop, through collaboration, strategies that address the research problem, as well as to attain a doctoral degree. I identified the learning set approach as appropriate for this study. Several authors (for example, McNiff, 1993) explain how action research delivers results that satisfy the intended purposes when research is undertaken through learning in action. Participatory action research involves joint generation of knowledge and linking it with the real-work setting (Selener, 1997). This report documents how I used action research to

learn from workplace experts in the field to attain results that are accurate and reliable.

The Midvaal Local Municipality, which serves as the study locale, is both the location in which my organisation operates and among the municipalities with the highest number of unfinalised traffic offences in South Africa. At the commencement of the study, separate meetings were held with the traffic chief and the senior prosecutor to present the identified research problem to these authorities' heads. Although there was initial reluctance from the senior prosecutor, I received consensus and endorsement for my representation of the problem from the traffic chief and a subsequent endorsement by the senior prosecutor, following higher-level engagements with the National Director of Public Prosecutions through the office of the chief prosecutor. The two organisations then assigned two officials, respectively, who are at supervisory/management level and directly associated with the administration of traffic offences to participate in the study. These officials worked with members of my organisation to form an interorganisational learning set, which I facilitated in my role as an insider action researcher. The approval of the organisations and participants was obtained before the study officially began.

1.6.1 The learning set method

Through the use of the National Action Learning Programme (NALP) approach (Coughlan *et al.*, 2002), the action learning set was established to work concurrently with existing formal organisational systems and to provide a conducive environment that fostered questioning and reflection in action. In order to align the learning set to the research problem and the theoretical framework, each learning set meeting addressed the research themes (Section 1.5), considered research questions relevant to the themes and developed action plans to address those questions. After inaugurating the learning set, we identified the expertise and level of experience of the individuals and deliberated on conflict resolution procedures.

1.6.2 Data sources

Data for the action research study were gathered from several sources. Learning set deliberations, action plans and results were recorded in learning set minutes and documents created by members of the learning set. I also maintained a research journal which contained field notes on learning set meetings and activities, including

observations of the participants and their interaction, and observations and interpretations of court proceedings. I also kept a learning journal that combined relevant observations from learning set records and field notes in a sequential record, with a record of reflections on aspects of the research, including those not strictly connected with the learning set.

Managing the information systems involved in a study is crucial for the efficiency of data generation (Irma, 2001). Throughout the data collection stages, I used an iPad to record data which was directly or indirectly connected to the study. Observations, analyses, field notes and comments constitute the bulk of this data. Through this approach, I managed not only to keep a detailed research record but also to share relevant material with the learning set.

1.6.3 Dual role of the researcher-practitioner

My insider-outsider status was a valuable resource for me as I was able to mobilise both insider wisdom and outsider research to explain the phenomenon under inquiry. As Humphrey (2007, p. 23, in Coghlan and Brannick, 2014) stated, “To actively take charge of the hyphen is to appreciate one’s uniqueness as an insider-outsider and to cultivate the art of crossing between the life-worlds”.

1.7 Delimitation of the scope of the study

This study is limited to finding viable solutions to the problem of finalising the administration of traffic offences in the Midvaal Local Municipality. The study draws implications for addressing the issue in other municipalities which face a similar problem and adopt a similar interorganisational structure for the finalisation of traffic offences.

1.8 Thesis outline

The research begins with two review chapters, one which documents the legislative, governance and operational environment for traffic law administration in South Africa (Chapter 2) and one which reviews relevant scholarly research and establishes a conceptual framework for the research (Chapter 3). Chapter 4 presents the research methodology. This chapter describes the research design, participants and methods of data generation and analysis in detail. Chapter 5 answers the research questions, documents the findings and includes reflections of the potential for implementation of

the proposed change, along with the value of KM theory in the research context. Chapter 6 contains the conclusions about the research and acknowledges the limitations of the research as well as offer recommendations for future research. The last chapter contains my reflections on lessons learnt from this action research study.

1.9 Definitions

“Chief prosecutor” means a prosecutor appointed to help coordinate and assess the performance of prosecutors.

“Clerk of the Court” (also called the “court clerk”) is an officer of the court whose responsibilities include maintaining records of a court, as well as rendering administrative support to the judiciary, prosecution, attorneys and advocates, and to the general public.

“Finalisation” refers to when the traffic fine is paid, or the magistrate’s sanction has been executed.

“Infringer” means a person who has allegedly committed an infringement in terms of AARTO.

“Issuing authority”, also known as “traffic authority”, refers to those organisations given the mandate to issue and administer notices of contraventions of road traffic law compliance in South Africa.

“Knowledge integration” refers to the systematic integration of specialised organisational knowledge for the purpose of achieving a common goal.

“Knowledge management” refers to the systematic management of an organisation’s knowledge assets for the purpose of creating value and meeting tactical and strategic requirements.

“Knowledge sharing” is one of the components of KM and the fundamental means through which groups can contribute to knowledge application, innovation and, ultimately, the interorganisational effectiveness.

“Offender” is a person who has allegedly committed a traffic offence in terms of the CPA.

“Private contractor” is a private company employed by an issuing authority to provide traffic law enforcement equipment, infrastructure and support services to the authority.

“Prosecute”, refers, in this thesis, to taking legal steps against a person who has committed an infringement of a traffic law.

“Prosecuting authority” is the Constitutional institution with the power to institute criminal proceedings on behalf of the State.

“Representation” is when an infringer challenges an infringement notice and provides reasons why they cannot be held accountable for that infringement.

“Representation officer” is a person appointed by the RTIA to consider representations made by an alleged infringer who elects to make a representation

“Road Transport Management System” (RTMS) is an industry-led self-regulation scheme that encourages consignees, consignors and transport operators engaged in the road logistics value chain to implement a vehicle management system that preserves road infrastructure, improves road safety and increases the productivity of the logistics value chain.

“Traffic chief” refers to the Chief Traffic Officer of the Midvaal Local Municipality (the issuing authority within whose jurisdiction this research was conducted)

“Traffic infringement notice” is the formal notice provided to an offender (and the court) that records the detail of the infringement, also known as traffic fine.

“Traffic infringement”, also known as “traffic offence”, means the act of infringing or breaking the terms of the relevant law.

“Traffic officer” is a qualified and registered officer employed by an issuing authority to control traffic and ensure effective traffic flow and enforce laws and regulations pertaining to road traffic. Sometimes they provide evidence in traffic court cases.

“Warrant” is a court order which directs a traffic officer, or a sheriff, to arrest and bring a traffic offender before a magistrate. In terms of AARTO, a warrant is an order of the RTIA which is executed by the sheriff on the alleged infringer.

1.10 Envisaged research contribution

In South Africa, cases involving traffic offences continue to build up in the courts. Statistics show the increased numbers of road accidents in the country. One possible explanation is the lack of adequate implementation of KM and IKM approaches within and between the responsible bodies. Road safety management in South Africa is mandated to several organisations, namely the issuing authorities, in some instances supported by private companies contracted to them, and the courts. Each organisation executes different tasks, but there needs to be a flow of information from one authority to the other to achieve successful finalisation and prosecution of traffic offences. Knowledge sharing among organisations may be inhibited by certain barriers (Paulin and Suneson, 2012), which suggests the possibility that the absence of an effective KM enabling environment has adversely affected the finalisation of traffic offences.

The courts play a vital role in enforcing the traffic laws in the country, but the lack of coordination with the other relevant bodies has seen an increase in unsuccessfully prosecuted cases. The lack of efficiency in prosecution could be playing a significant role in road users' limited compliance with the traffic laws.

Since its establishment in 2005, the RTMC has commissioned several studies which have focussed on establishing the causes of the increase in road accidents. However, a study of KM and IKM practices has not been undertaken. This study adopts action research that draws on KM and IKM to identify new strategies for finalisation of the administration of traffic offences.

The next chapter will document the legislative and operational framework and conclude with the institutionalised public-private partnership model upon which the interorganisational KM collaborations are based.

CHAPTER 2. LEGISLATIVE, GOVERNANCE AND OPERATING ENVIRONMENT

2.1 Introduction

There are three levels of government in South Africa: national, provincial and municipal. Part A of Schedule 4 of the *Constitution of the Republic of South Africa* (1996) gives national and provincial governments concurrent functions in the administration of road traffic regulations. The *Constitution* (c. 156(1)) gives municipalities the right and the executive authority to administer those local government matters listed in Part B of Schedule 4 and Part B of Schedule 5. This includes the administration of traffic management systems, service level agreements and policies, processes and standard operating procedures in terms of AARTO and the CPA (O'Malley, no date).

2.2 Statutes governing the administration of traffic law offences

2.2.1 National Road Traffic Act 1996 (NRTA)

NRTA addresses all road traffic matters that apply uniformly throughout South Africa. It prescribes national ideologies, necessities, strategies, agendas and norms and standards that must be used in all provinces, as well as other issues described in the *Constitution* c, 146(2). It also consolidates land transport functions and locates them in the SANRAL. NRTA provides specific powers to the RTMC and related issuing authorities to enable them to execute their functions. NRTA c. 7 addresses the management of road safety.

To give effect to the powers provided to the RTMC and related issuing authorities, two statutes were developed to administer traffic offences. They include:

2.2.1.1 Administrative Adjudication of Road Traffic Offences Act 1998 (AARTO)

The AARTO Act was legislated in order to decriminalise the traffic offence administration into a civil process of administering traffic infringements. It is partially enforced only in the Johannesburg Metropolitan Police Department (JMPD) and the Tshwane Metropolitan Police Department (TMPD).

The AARTO Act also established the RTIA as an independent body responsible for the administration and adjudication of traffic infringements in an impartial, fair and transparent manner.

2.2.1.2 Criminal Procedures Act 1977 (CPA)

Although all issuing authorities in South Africa were required to administer traffic infringements under AARTO from 1 July 2017, the controversy surrounding the application of the Act has meant that this has not occurred (Justice Project South Africa, 2017). Accordingly, all traffic offences under the provisions of the NRTA are presently administered in terms of the CPA, except in the JMPD and TMPD.

This statute governs criminal proceedings by establishing the due processes for administering traffic offences in terms thereof.

2.3 Authorities responsible for the administration of traffic offences

Various bodies have been mandated to oversee the administration of traffic law infringements, as illustrated in Figure 2.1. These authorities possess specific sets of knowledge required to finalise a traffic infringement. However, knowledge needs to be effectively managed and shared among these authorities to achieve finalisation. The authorities are introduced in more detail in this section in two groups, national agencies responsible for road traffic administration and bodies responsible for the operational administration of road traffic law infringement.

2.3.1 National agencies responsible for road traffic administration

2.3.1.1 The Road Traffic Management Corporation (RTMC)

The RTMC was established in 2005, in line with c. 44(2) of the *Constitution*, as a result of a successful partnership between the national and provincial domains of the government.

The RTMC complies with the *Constitution* with regard to the *Road Traffic Management Corporation Act* (1999) (RTMCA) and the NRTA. The RTMCA was designed to enable the Corporation to pool resources and powers and to eradicate the fragmentation of responsibility for all aspects of road traffic management across all levels of government. It is a participant in the United Nations Road Safety Collaboration and is responsible for monitoring local road safety programmes and reporting on progress in the reduction of road fatalities to the United Nations.

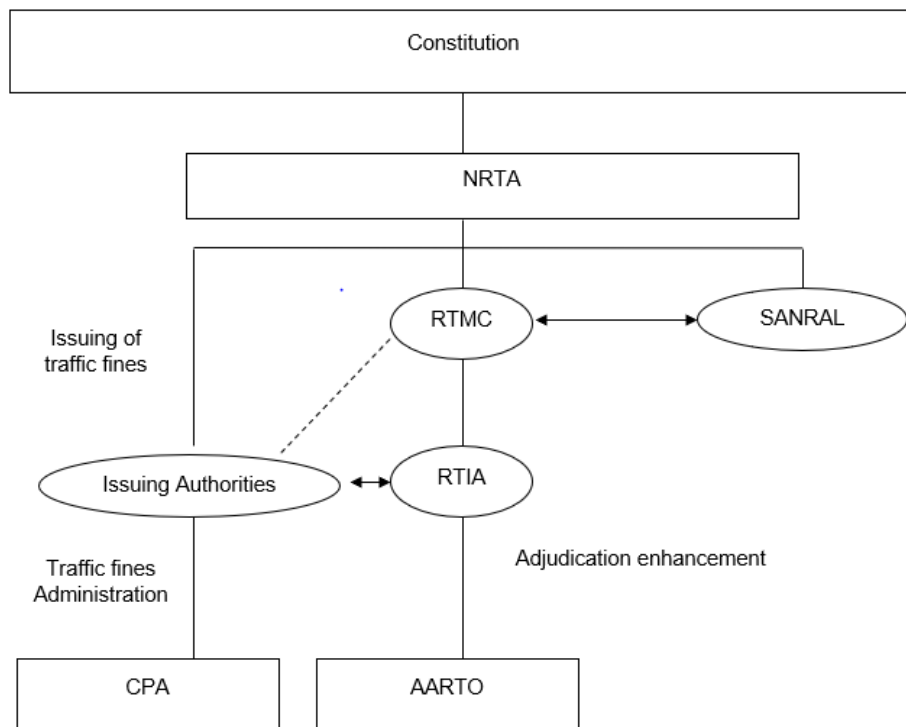


Figure 2.1: Relationship between the Acts and authorities

According to a report by Arrive Alive (2011), the Corporation is responsible for seeking and consolidating resources as well as developing road traffic management policies aimed at reducing the country's road accident death toll. The RTMC is also required to enforce the existing traffic laws. The RTMC was also given the mandate to develop new strategies to increase road safety awareness.

2.3.1.2 Road Traffic Infringement Agency (RTIA)

The RTIA is registered as a public entity under the *Public Finance Management Act* (1999, c. 3(A)) and complies with Treasury Regulations as well as other conventions such as the *Promotion of Access to Information Act* (2000) and the *Promotion of Administrative Justice Act* (2000). It was formed to enhance the adjudication procedures concerning infringement notices issued by issuing authorities under the AARTO Act. (The RTIA has no involvement in the notices issued in terms of the CPA.)

2.3.1.3 South African National Roads Agency Limited (SANRAL)

The South African National Roads Agency Limited (SANRAL) is an independent company registered in terms of the *South African National Roads Agency Limited and National Roads Act* (1998) and established in accordance with the NRTA.

SANRAL is tasked with various duties regarding road safety on the country's roads.

One of SANRAL's initiatives to preserve road infrastructure, improve road safety and increase productivity, was the introduction of the Road Traffic Management System (RTMS). The RTMS is a self-regulatory scheme that was established and launched by the National Department of Transport (NDoT) in 2006 to oversee the national overload control strategy by the NDoT. It allows all the road transport operators to use a management system that shows compliance with road traffic laws.

2.3.2 Operational administration of road traffic law infringements and offences

In terms of the statutes, traffic law enforcement activities are undertaken exclusively by issuing authorities as defined in the RTA and NRTA. In some instances, issuing authorities employ private companies to provide support services as determined by the prosecuting authority on the basis of the guidelines discussed in Section 2.3.2.2. Issuing authorities are authorised to initiate prosecutions by issuing a notice in accordance with CPA c. 341, or any other notices under the Act. Issuing authorities augment the activities of their traffic officers by contracting private sector companies to provide administrative and logistical support, while the National Directorate of Public Prosecutions (NDPP) performs prosecutorial functions in municipal courts. Each organisation's role is described in more detail in the following sub-sections.

2.3.2.1 Issuing authorities

Issuing authorities within municipal governments employ traffic officers to undertake traffic law enforcement activities as defined in the road traffic acts (RTA and NRTA). The activities of traffic officers, applicable to all violations of road traffic and road transport legislation, are specified by the Technical Committee for Standards and Procedures for Traffic Control and Traffic Control Equipment (TCSP) as:

- operate mobile or manually operated speed enforcement cameras and mobile traffic enforcement systems;
- initiate prosecutions by issuing notices in accordance with the CPA;

- adjudicate offences, in terms of the road traffic acts and the CPA, prior to issuing notices.

2.3.2.2 Private companies

Private companies are appointed through standard government supply chain practices to provide support services to issuing authorities. The services supplied include the provision of speed law enforcement cameras, traffic offence administration software and management, as well as technical and administrative personnel. The companies must provide back-office IT systems with back-up infrastructure and have administrators with appropriate training, skills and experience in the administration of traffic offences.

The enforcement equipment provided by private suppliers must be compliant with the *Prosecuting Guidelines for Speed Measuring Equipment and Traffic Light Violation Monitoring Equipment* (TCSP, 2012) (*TCSP Guidelines*). The guidelines, which apply to all violations of road traffic and road transport legislation, are developed by the prosecuting authority and establish the following responsibilities for private sector organisations:

- provide traffic enforcement equipment;
- train traffic officers to use different traffic enforcement equipment and systems;
- provide logistical assistance for
 - traffic enforcement equipment, including maintenance, calibration services and repairs;
 - all back-office administrative functions, including data capture, printing, mailing and the administrative support involved in posting or serving notices required under the CPA;
 - serving of CPA c. 54 notices.
- Because traffic enforcement activities may not be contracted to private-sector entities, private sector organisations are not permitted to:
 - use a mobile or manually operated speed measuring system;

- adjudicate potential offences and initiate prosecution by issuing a notice in accordance with the CPA c. 341;
- command or take responsibility for traffic law enforcement operations on behalf of a municipality or in any way prescribe specific activities such as hours of operation.

2.3.2.3 The prosecuting authority

Municipal court prosecutors, including traffic prosecutors, conduct their duties under the authority of the DOJCD. In terms of the South African *Constitution* (c.165), judicial authority in South Africa is vested in the courts, which are independent and subject only to the *Constitution* and the law. The DOJCD is responsible for the administration of the courts in conjunction with judges, magistrates, the NDPP and Directors of Public Prosecutions.

The National Directorate of Public Prosecutions (NDPP)

The NDPP has the authority to:

- issue TCSP *Guidelines*;
- authorise municipalities to use cameras for speed law enforcement in terms of the TCSP *Guidelines*, upon application;
- terminate prosecutions for offences involving contraventions of the TCSP *Guidelines*;
- allocate or appoint prosecutors to municipal courts to ensure that court procedures are adhered to.

Municipal courts

Municipal courts function as specialised magistrate's courts which deal only with traffic offences and contraventions of municipal by-laws. They are set up in a partnership agreement through which administrative and infrastructural support is supplied by the municipality, while the DOJCD provides magistrates and prosecutors.

Administrative support is given to magistrates and prosecutors by the municipalities. Prosecutors meet with traffic officers and give lectures and guidance on how to approach cases.

2.4 The adjudication of road traffic offences

As noted in Section 2.2, all traffic contraventions as outlined in the provisions of the NRTA and its Regulations are presently administered according to the CPA, except in the Tshwane and Johannesburg municipalities where AARTO has been partially effected. This section describes the processes involved in the administration of traffic offences under the CPA, since this study's focus on organisations that collaborate in terms thereof.

Although traffic law enforcement in South Africa is the task of issuing authorities, the administration of traffic offences is shared between issuing authorities, private contractors and the prosecutions authorities in the courts. Figure 2.2 illustrates the roles played by these different stakeholders. The roles of each player involved in the administration of a traffic offence are explained below.

2.4.1 Issue of traffic fines

Traffic fines issued in terms of CPA c. 341 are sent by the private contractor, on behalf of the issuing authority, to the alleged offender within 30 days of the offence.

2.4.2 Payment and successful representation

The alleged offender may pay the fine or submit a representation for mitigating circumstances to the issuing authority. Successful representations are forwarded by the issuing authority to the prosecutors for consideration, resulting in the fine being unadjusted, reduced or withdrawn.

2.4.3 Failure to pay within 90 days

In cases where there is no representation or the representation is unsuccessful, and the alleged offender fails to pay the fine within 90 days of the offence, a criminal summons with a court date will be issued by the private contractor on behalf of the issuing authority and served on the alleged offender no later than 14 days prior to the court date (CPA c. 54). The alleged offender then settles the fine or approaches the prosecutor at the designated court with a representation.

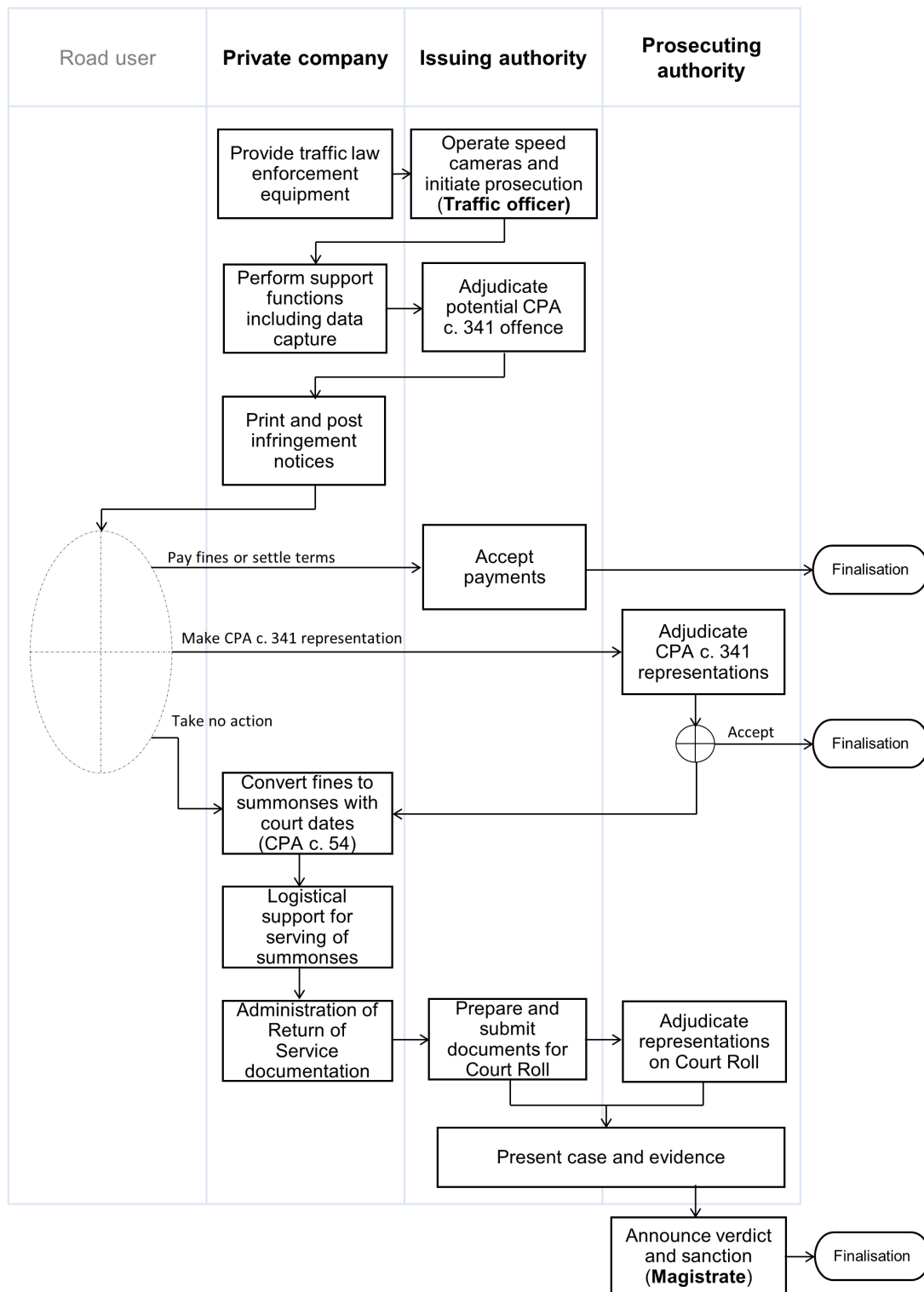


Figure 2.2: Roles and processes in the administration of traffic offences in South Africa (CPA = Criminal Procedure Act 1977; road user included for information only)

2.4.4 *Contempt of court and arrest warrant*

If the alleged offender does not take any action and fails to appear in court on the allotted court date, then a magistrate will hold them in contempt of court and impose an additional fine for the contempt. A warrant of arrest will then be issued and effected by traffic officers or Sheriffs of the Court, sometimes at traffic enforcement roadblocks or roadside stops by the traffic officers. After the declaration of a warrant of arrest, a courtesy letter may be sent by the private contractor on behalf of the issuing authority to the offending person's address within seven days of issue.

2.4.5 *Finalisation of traffic offences*

Traffic offences are deemed to be successfully finalised when the fine is paid, or the appropriate sanctions are imposed. Additionally, in terms of the *National Road Traffic Regulations* (2000), c. 25(7)(e), pertaining to the NRTA, a vehicle registration authority may decline to issue a licence disc if a warrant has been issued against the owner of the vehicle.

2.5 Coordination among actors in traffic law infringement administration

South Africa is a signatory to the United Nation's Decade of Action for Road Safety 2011-2020 Declaration, and the goals of this Declaration are among the country's strategic goals (Ndebele, 2011). If the country is to meet its goals, the organisations that participate in traffic management and traffic law enforcement need to coordinate their efforts effectively. In this section, I argue that a prerequisite for fruitful coordination is understanding how the knowledge of each of the interconnected role players plays a part in the successful prosecution of traffic offences.

The overall administration of the traffic law infringement system in South Africa comprises the issuing authorities, the private companies and the courts. The cooperative determinations are essential for effective finalisation of the administration of traffic law infringements (Mabunda, Swart and Seedat, 2008). To administer traffic law infringements in a way that achieves their finalisation, the organisations need to share knowledge. If this is to occur, there needs to be an institutionalised interaction mechanism between the bodies, beyond the formal data sharing, training and briefing activities dictated by the laws and discussed in this chapter. Except for the operational meetings between traffic officers and private company employees, no such mechanism currently exists, yet sharing knowledge

and information is essential for the effective administration of road traffic laws and consequent violations. I suggest that the lack of proper collaboration among these bodies is an important factor in the poor road safety record of South Africa.

The different knowledge acquired by the different administrators in traffic law enforcement underscores the strategic importance of different kinds of knowledge in the process. Traffic officers are employed by issuing authorities. They acquire theoretical and practical knowledge from accredited institutions to ensure a safe passage in traffic and that all road users, including pedestrians, use roads in an orderly and safe manner. During this training and while on the job, traffic officers are provided with knowledge that enables them to enforce compliance with the NRTA, *National Land Transport Act* (2009) and AARTO. In addition to controlling traffic, inspecting vehicles for roadworthiness, and enforcing compliance to road traffic signs and the rules of the road, traffic officers are provided with knowledge and skills to operate enforcement equipment. Private companies provide support services and deliver enforcement equipment that is compliant with the TCSP *Guidelines*. Their personnel are required to have appropriate knowledge of the administration of traffic law infringements. Municipal court prosecutors are trained in equality and fairness in court procedures and decision-making, information management systems and case flow management as well as recovery and collection of fines.

Collaboration between these administrators relies on an understanding of specific knowledge that can be provided only by members of a collective. For example, although the decision to prosecute an offender is at the discretion of the prosecutor, the TCSP *Guidelines* establish operational guidelines for speed measuring and traffic light violation monitoring equipment that is frequently supplied by private companies under contract to municipal issuing authorities. Municipal traffic officers rely on private companies for training in the operation of the equipment and associated systems. They also rely on prosecutors to guide them on how to adjudicate offences and approach cases that go to the courts. As such, I contend that interorganisational knowledge management should be a fundamental premise in the execution of administrators' responsibilities within each organisation.

2.6 The institutional governance framework: Public-private partnership model

Dawes and Eglene (2004, p. 40) define collaboration in public administration as “A reciprocal and voluntary agreement between two or more distinct public sector agencies, or between public and private or non-profit entities, to deliver government services.” However, to achieve institutional legitimacy, such collaborations need an institutional framework, preferably based in law or regulation in order to withstand political transitions and changes in key stakeholders.

Municipalities in South Africa are bound by the service delivery stipulations set out in the *Municipal Systems Act* (No. 32 of 2000) and other related legislative frameworks as well as their Performance Management Indicators. In acknowledging the problems associated with the challenges faced by municipalities regarding the implementation of these Acts and related frameworks, a shift from *government* to *governance* occurred, leading to the increasing use of mechanisms such as Public-Private Partnerships (PPP) (Bruchez, 2014). Consequently, a “PPP Unit” in South Africa was set up in the year 2000 (Bruchez, 2014). This establishment is congruent with Laihonon and Sari’s (2018) principle of the ongoing transformation from new public management (NPM) to new public governance (NPG) in local governments. However, the ability of the public sector to effectively design and implement public-private collaborations in accordance with the envisaged principles remains an emerging challenge in the public management field (Boyer, 2016).

Several studies on KM in the public sector in South Africa have been done, but I have not found any studies in the interorganisational KM context. Notably, the Department of Public Service and Administration (DPSA, 2010) outlined the importance of KM in public institutions. In this regard, the government aimed to create innovative and reusable service delivery models with the intention of improved integration and coordination across the public sector.

Boyer (2016) and Bruchez (2014) contend that due to challenges that continue to plague PPPs, for instance, private sector efficiency values in contrast to the public sector values like transparency, these partnerships do not realise their potential. This could be one explanation of the increasing number of unsuccessful prosecutions for finalisation of traffic offences. Broadly articulated, they argue that this can partly be attributed to the fact that, at the South African national government level, operations

are characterised by competing political versus governance (service delivery) imperatives. Nevertheless, this is not only a South African phenomenon as Haricharan (2004) postulated that local governments across the world are confronted with demands to change and modernise their operations in order to facilitate development in the new 'knowledge economy'.

KM is an established management approach that has been successfully applied across corporate sectors by methodically creating, preserving and optimally using the extensive knowledge present in an organisation (Fowler & Pryke 2003, p. 254). Illustration of KM within the public service sector, though not uncommon, is less prevalent (Fowler & Pryke 2003). Laihonon and Mäntylä (2018) posit that the application of KM in the public sector is characterised by some specific problems, such as instances where KM is being approached mainly from the technological point of view, and by concentrating predominantly on certain public services, such as the police, education, or healthcare. However, as policies that recognise the 'information age' are adopted, there is a stronger propensity towards KM within the government's operational environment (Fowler & Pryke 2003).

Fowler and Pryke (2003) considered reforms over the past two decades as evidence that there is a stronger inclination towards KM within South African public sector organisations where the focus is on responding to the needs of citizens and providing comprehensive and integrated service delivery. For example, the Department of Provincial and Local Government (DPLG) identified KM as a key managerial skill for senior managers at the local government level (DPLG Annual Report, 2007). This idea was aligned with the government's strategy centred around the advancement of knowledge creation and sharing as a means of increasing combined knowledge of the local government (DPLG Strategic Plan, 2007-2012). Consequently, improved service delivery in the administration of traffic offences might be achieved by leveraging on the DPLG's strategy within the involved public sector organisations.

According to Laihonon and Mäntylä (2018), hybrid organisations are being positively impacted by rising horizontal cooperation, network relations, and a strong reliance on partnerships. The administration of traffic offences through effective IKM strategies that are accordingly aligned to these factors could yield the desired organisational

outcomes. Simply put, through the implementation of IKM practices, hybrid organisations that administer traffic offences could be in a position to deliver the best possible services. This could be possible within a collegially oriented culture that is purpose driven, encourages the open sharing of information, supports the presentation of different perspectives and examines errors to solve problems rather than to allocate blame (Moynihan and Landuyt, 2009).

The next chapter reviews relevant knowledge management literature to explore the appropriateness of explicit implementation of KM and IKM approaches in addressing challenges to the successful finalisation of traffic offences.

2.7 Conclusion

This chapter presented an overview of the administration of traffic offences in South Africa. The chapter discussed the roles and responsibilities of the key players and establishments in traffic offence administration, including the issuing authority, prosecuting authority and private companies that are contracted to support the core functions of the two authorities. The institutional governance framework model was also discussed. Figure 2.2 in the chapter provides an overview. The next chapter discusses knowledge management.

CHAPTER 3. LITERATURE REVIEW

3.1 An introduction to knowledge management (KM)

As indicated in section 1.4, this chapter presents a broader discussion of the KM literature, with an emphasis on theories that are focused and relevant to the research problem, themes and questions. To be precise, the sections are presented in line with the research themes and are aimed at framing the action research data collection methods that will be described in the next chapter. The previous chapter focused on the legislative knowledge-base and concluded with the institutional organisational framework, thereby incorporating some sections of the explicit knowledge in theme 1. Sections 3.2 and 3.3 provide an extension of theories related to theme 1. Sections 3.4 and 3.5 focus on the second theme, which relates to KM processes while sections 3.6 to 3.8 focus in on interorganisational KM. The chapter concludes with a summary of how my research issues can benefit from the research literature.

My study is an interorganisational action research project that focuses on KM and its relationship to the successful prosecution of traffic offences. While traffic law enforcement in South Africa is the statutory responsibility of issuing authorities, the administration of traffic offences is shared among issuing authorities, private companies where applicable, and the prosecution authorities. Successful finalisation of traffic offences is probably dependent on effective interorganisational collaboration in respect of KM and IKM practices. The research is set in my company's workplace environment, the Midvaal local municipality in the Gauteng Province of South Africa, where there is no institutional mechanism in place to monitor and ensure that KM and IKM practices are explicitly implemented to achieve successful finalisation of traffic offences. In this chapter, I explore the use of the KM and IKM literature by an interorganisational team as an effective mechanism to improve the finalisation of traffic offences.

I found little reference in the literature to applications of KM in traffic law enforcement. The limited reference might be explained by the seemingly inadequate theoretical foundations of the importance of interorganisational collaboration in the context of local government administration, associated with the limited theoretical framing of interorganisational knowledge management (IKM) as alluded to quite

recently by Lancini (2015). However, Lancini does recognise that collaborating organisations are influenced by contextual and environmental reasons to pay more attention to the interorganisational perspective within KM. Given the relevance of IKM to interorganisational collaboration, this chapter discusses both KM and IKM approaches and explores whether the explicit implementation of these approaches is appropriate for the successful finalisation of traffic offences. Before discussing IKM, I consider how definitions of knowledge and KM can be applied in the context of the administration of traffic offences.

3.2 What is knowledge?

The notion of knowledge is often used to refer to information and sometimes to know-how or wisdom. Epetimehin & Ekundayo (2011) consider knowledge as vital intellectual capital acquired through complex cognitive processes, whereas Davenport, De Long and Beer (1998) posit that knowledge is enriched information that adds a new level of insight. Several authors address the question of defining knowledge by distinguishing knowledge from information and data (Frost, 2010). Data and information are often regarded as lower denominations of knowledge, but the exact distinction varies from one author to another (Frost, 2010). For example, to define knowledge distribution, it is important to distinguish between data, information, and knowledge. According to Maglitta (1996), data is raw numbers and facts, information is processed data, and knowledge is information made believable and actionable. A complementary approach is taken by Vance (1997), who defines knowledge as information that has been verified and thought to be valid, and information as data interpreted into a meaningful framework.

A distinction between data, information and knowledge can be seen in the capture and processing of traffic offences. Traffic officers use speed cameras to capture an infringement in a data form that contains the vehicle image and the vehicle registration number (speed camera infringement captured in terms of CPA c. 341). In other instances, infringement data are in the form of unverified detail provided by the offender at the time of a roadside citation (hand-written offences in terms of CPA c. 56). The raw data (captured either electronically or manually) is decrypted and converted into information that is verified for accuracy by traffic officers. Subsequently, it is actioned and embedded in records as part of the knowledge required to administer traffic offences.

Taking both Maglitta's (1996) and Vance's (1997) views together, knowledge, as actionable information, needs to be an accurate manifestation of the raw data. Furthermore, McQueen (1998) observes that knowledge is conditional on access to information. In the context of traffic offence administration, this observation is important since, without accurate data, it would be impossible to develop traffic offence notices that can be successfully finalised.

3.3 Types of organisational knowledge

Several typologies of organisational knowledge are presented in the literature. In this section, I consider two related typologies which underlie important KM principles for my study: knowledge as object and process/practice, as well as tacit and explicit knowledge (Zack, 1999b).

3.3.1 Knowledge as an object and process

Organisational knowledge can be regarded as a thing to be stored and controlled (an object) or as a process of simultaneously knowing and acting (application of expertise in practice). Each view is associated with a different approach to KM, as explained by Carlsson *et al.* (1996).

Knowledge, as an object, is considered a pliable resource whose codification enhances its management (Prichard, 2000). Viewing knowledge as an object, therefore, suggests a perspective of KM that focuses on building and managing knowledge stocks. This view is important for the management of interorganisational knowledge objects such as records of traffic offences.

Several authors espouse the view that knowledge can be seen as a process, as well as (or rather than) an object (Carlsson *et al.*, 1996; McQueen, 1998; Zack, 1999b). The process view considers knowledge as a capability with the potential for influencing future action; in the context of traffic fine administration, this view suggests the need to develop knowledge for the successful prosecution of traffic offences.

Viewing knowledge as a capability further suggests a focus on building core competencies and understanding the strategic advantage of know-how and intellectual capital (Carlsson *et al.*, 1996). In traffic fine administration, this might

translate to the development of technical infrastructure, as well as the human knowledge to improve the finalisation of traffic offences.

3.3.2 *Explicit and tacit knowledge*

Another common typology distinguishes between explicit and tacit knowledge. The former refers to codified knowledge, such as traffic law enforcement statutes, traffic offence notices and related guidelines and procedures that are found in documents, while the latter refers to non-codified and often personal and experience-based knowledge such as the formal and informal experiences of administrators (Nonaka, 1994).

Many of the beliefs associated with the management of tacit and explicit knowledge were summarised by Sanchez (2004), who described approaches to the management of each type (Table 3.1). Tacit knowledge is characterised by the basic belief that knowledge is essentially personal and very difficult to extract from people. According to Sanchez, this view implies that organisational knowledge is largely vested in the heads of individuals and its management can be improved under circumstances that encourage knowledge sharing and development of new insights that lead to new knowledge creation. Explicit organisational knowledge, on the other hand, includes the knowledge of individuals that can be made explicit through articulation and codification to create explicit knowledge assets. Sanchez argued that explicit knowledge assets could be disseminated (using information technologies) in the form of documents, drawings, best practices, etc. Traffic infringement notices and the regulations governing their administration can be categorised as explicit knowledge. Appropriate KM practices for the administration of traffic notices include documenting the related processes and tasks that each administrator is required to perform.

Table 3.1: Beliefs associated with management of tacit and explicit knowledge
(Sanchez, 2004)

Tacit Knowledge	Explicit Knowledge
<ul style="list-style-type: none"> • Knowledge is personal and very difficult to exhort from people. • Knowledge must be passed on by moving people within or between organisations. • Learning must be promoted by bringing the right people together under the right circumstances. 	<ul style="list-style-type: none"> • Knowledge can be expressed and codified to create explicit knowledge assets. • Knowledge can be distributed in the form of documents, drawings, best practices, etc. • Learning can be constructed to remedy knowledge deficiencies through structured, managed, scientific processes.

In practice, all knowledge is probably a mixture of tacit and explicit elements rather than one or the other (Botha *et al.*, 2008). For this reason, Sanchez (2004) concludes that the goal of each organisation or collaborative network is to create a design for its KM practice that synthesises the tacit and explicit KM approaches. The value of such an approach in the organisational and operational context of my research can be seen from the mix of tacit and explicit knowledge needed to administer traffic offences.

Each traffic department has an accredited traffic chief along with certified traffic officers who are required to know how to execute their responsibilities in terms of the statutes and related standard operating procedures. To complement and possibly professionalise their service delivery, the traffic department has the discretion to appoint private companies that have the necessary technical, IT and administrative infrastructure and know-how to provide support services. Traffic prosecutors are appointed by the NDPP based on their qualifications, knowledge and experience in traffic law enforcement matters. The TCSP *Guidelines* issued by the NDPP define and demarcate the roles and responsibilities of each of the organisations involved in the administration of traffic offences. In this scenario, it is evident that both

institutional explicit and individual tacit knowledge needs to be integrated for successful finalisation and prosecution of traffic offences.

In summary, tacit knowledge is that which is internalised. It encompasses the experience, understanding, skills and expertise within the organisation, while explicit knowledge is that which is documented, readily available and easy to disseminate (Mostert & Snyman 2007). As such, understanding KM processes when engaging in an interorganisational knowledge management project requires consideration of these two types of knowledge. Accordingly, organisations should maintain an appropriate balance between these two types of knowledge.

Although Nonaka and others (e.g., Spender 1992, 1996a, 1995b) rely heavily on the tacit-explicit, individual-collective knowledge distinction, a comprehensive explanation as to the interrelationships among the various types of knowledge is not apparent. One potential unintended manifestation in the interpretation of this taxonomy is the supposition that explicit knowledge is less valuable than tacit knowledge. Except for Bohn (1994), few authors favour a technology-enabled knowledge management process (technology being used to aid in explicating, storing, and disseminating knowledge) as they venture to suggest that explicit knowledge is more valuable than tacit knowledge. Reliance on experienced (tacit-knowledged) administrators has caused unintended cultural conflict between the administrators, primarily due to the racial skeweredness of the imbalances. As such, the private sector's IT capability plays an important role in mitigating the imbalances due to its knowledge-based being independent of an individual's experience or tacit knowledge.

Regardless of which of the two is more valuable, the two are mutually dependent and reinforce qualities of knowledge; it is posited that the background necessary for assigning the structure to develop and interpret explicit knowledge is based on the quality of tacit knowledge (Polyani 1975). This is evident during knowledge sharing processes as the experienced administrators are more likely to offer a plausible interpretation of traffic laws in situations where a grey area is confronted. The inseparable linkage of tacit and explicit knowledge suggests that, in most cases, it is individuals with a requisite level of shared knowledge that can truly exchange knowledge. In other words, if tacit knowledge is necessary to the understanding of

explicit knowledge, then in order for the issuing authority's and prosecution authority's officials to understand the private company's employees' knowledge, there would have to be some overlap in their fundamental knowledge bases (Ivari and Linger 1999; Tuomi 1999).

Tacit knowledge has attracted more interest, and attention than has explicit knowledge, possibly because explicit knowledge is contained in hard records, thereby assuming legitimacy as opposed to tacit knowledge whose legitimacy can only be verified through a subjective assessment of the level of interpretation of the explicit knowledge (Jordan and Jones, 1997). Nonaka and Takeuchi (1995) proposed the model of Socialisation, Externalisation, Combination and Internalisation (SECI) concept, a model recognising the significance of tacit and explicit knowledge conversion, built on Polanyi's (1966) work "personal knowledge", which posits that knowledge resides in the minds of the individual, being organisational and practical, is considered to be the central model of organisational knowledge creation. The bringing together of knowledge acquisition, conversion, application and storage/protection as a requisite for a prosecutable traffic offence requires a system that is modelled around the recognition that tacit and explicit knowledge are mutually dependent and can improve service delivery. The key lesson being that knowledge management must not be confined to explicit types of knowledge, but its strategies must incorporate both typologies in order to ensure that the knowledge-base is balanced.

3.4 Knowledge integration

The importance of knowledge integration was discussed by organisational strategy theorists in the 1990s (Demsetz, 1991; Grant and Baden-Fuller, 1995). Demsetz (1991) noted that the specialised knowledge of different individuals and groups needs to be systematically integrated, particularly when it is stored in a specialised form that is not readily accessible to others. In my research context, each of the three organisations holds specialised knowledge which needs to be integrated to generate a traffic infringement notice with the potential for successful finalisation and prosecution. Since the administration of traffic infringements and offences requires bringing together the specialised knowledge of different organisations, some mechanism is likely to be needed for the integration of knowledge across those organisations.

Grant and Baden-Fuller (1995) suggested that the efficient utilisation and integration of specialised knowledge in collaborating organisations may be more important than hierarchical or internal governance. A key consideration in the administration of traffic infringements is therefore likely to be the extent to which administrators can access and utilise the specialised knowledge which is held within the involved organisations.

According to Grant and Baden-Fuller (1995), the ability to integrate knowledge is determined by two factors, the efficiency of integration mechanisms and organisational capacity to utilise the available knowledge. The efficiency of integration mechanisms refers to the ability of organisations to access, transfer and apply the specialised knowledge available to them to the transformation of inputs into output (Grant and Baden-Fuller, 1995). Specialised knowledge needs, however, to be translated into a form that can be understood by all actors who need it, if it is to be utilised (Demsetz, 1991).

3.4.1 *The efficiency of integration mechanisms for utilisation of knowledge*

The literature suggests that there are few technical barriers to the transfer of explicit knowledge which, by its nature, is codifiable (Chen *et al.* 2010). Badaracco (1991, in Grant and Baden-Fuller, 1995, p. 19) refers to codified knowledge as "migratory". In the context of my research, I consider the IT infrastructure provided by private companies in the form of local area networks, applications software and expert systems important for the efficient migration and integration of explicit knowledge.

However, the key inefficiencies relate to tacit knowledge. Nonetheless, a team structure can improve integration because, through a team structure, the diverse knowledge of individuals in complementary organisations can be brought together, integrated and applied to the process they administer together (Alavi and Tiwana 2002). In seeking to minimise these inefficiencies, organisation leaders may seek to support interorganisational collaboration with formal procedures and guidelines.

In this regard, I propose that in order to successfully finalise the administration of traffic offences, the issuing authority, the private company and the prosecuting authority must improve KM practices. Following Sanchez (2004), a sound synthesis of the KM approaches to tacit and explicit knowledge should enable the strengths of one approach to offset the inherent limitations of the other approach, and vice versa

(Sanchez, 2004). Furthermore, given the need to integrate tacit and explicit knowledge across the three organisations operationally involved in the administration of traffic fine infringements, the actualisation of sound KM practices to improve the current situation requires not just sound KM within each organisation, but also sound interorganisational KM practices. I, therefore, expect that the establishment of an interorganisational team to oversee the effective implementation of KM and KM practices will contribute to integrate specialised knowledge to the benefit of successful prosecution of traffic offences.

3.4.2 Mechanisms for knowledge integration

Efficient integration must preserve the efficiencies of specialisation in the acquisition and storage of knowledge. In this regard, Grant and Baden-Fuller (1995) identified two mechanisms for knowledge integration, direction and routine. Direction involves the integration of knowledge through specialists establishing rules, guidelines and directives for non-experts as well as codifying tacit knowledge into explicit knowledge (but in a very much reduced form). On the other hand, routines achieve knowledge integration through patterns of interaction among different specialists (Grant and Baden-Fuller, 1995). Team members develop signals and responses which permit integration of knowledge without the need either for extensive communication or for each team member to acquire the specialised knowledge of the others (Grant and Baden-Fuller, 1995). I see the integration among the administrators as a platform that will enhance the possibilities of efficient KM and IKM practices, where no team member would feel subservient to any other.

3.5 Knowledge management (KM)

The major implication of the various conceptions of knowledge discussed above is that each perspective suggests a different strategy for managing knowledge and a different perspective of the role of systems in support of KM (Carlsson *et al.*, 1996). While these views are useful for understanding differences among knowledge, information, data and knowledge processes, it is also useful to consider them in the context of KM. The character and focus of KM have progressed over time, with a distinguishing moment being Zack's (1999b) depiction of the epistemology of practice-based knowledge and recognition that organisational knowledge takes the form of both object and process. This section focuses on aspects of KM that aims to

facilitate the application of the specialised knowledge of the organisations involved in traffic offence administration. In particular, it seeks to identify actions that have the potential to improve the collective organisational performance of the administration of traffic offences.

3.5.1 *Defining KM*

Girard and Girard (2015) chronicled more than 100 definitions of KM penned by researchers and practitioners alike, with the primary aim of demonstrating the depth, breadth, and international nature of KM. Girard and Girard's analysis of the most commonly used definitions revealed verbs such as use, create, share and manage, and nouns such as knowledge, process, organisation and information to be the most common. As a result, Girard and Girard (2015) proposed a definition that refers to KM as the process of creating, sharing, using and managing the knowledge and information of an organisation.

Nonetheless, to establish the relevance of KM for my study, the question "What is knowledge management?" should probably be considered in its broadest sense, encompassing both the exploitation and management of existing knowledge assets and the processes involved in the creation, acquisition and utilisation of new knowledge. Perhaps the broadest definition is that KM is the management of an organisation's knowledge through a systematically and organisationally specified process for acquiring, organising, applying, sharing, sustaining and renewing both the tacit and explicit knowledge of employees to enhance organisational performance and create value (Davenport and Prusak, 2000). A congruent definition, offered by Frost (2010), describes KM as the systematic management of an organisation's knowledge assets to create value and meet tactical and strategic requirements. In Frost's view, KM consists of the initiatives, processes, strategies, and systems that sustain and enhance the storage, assessment, sharing, refinement and creation of knowledge.

For this study, the definitions I found most persuasive were those aligned with the view that state that KM is a conscious strategy of getting the right knowledge to the right people at the right time and helping people to share and put information into action in ways that strive to improve organisational performance (O'Dell and Grayson, 1998). This view is concurrent with the definition that considers KM as the

facilitation and support of processes for creating, sustaining, sharing, and renewing of organisational knowledge in order to generate economic wealth, create value, or improve performance (Allee, 2003). Some authors observe that the survival and prosperity of organisations are dependent on how knowledge is effectively managed and utilised to take full advantage of its value (Teece, Pisano, and Shuen, 1997; Kamhawi, 2012).

Notably, according to Frost (2010), KM, as a mixture of strategies, techniques, and procedures, is dependent on understanding and management of organisational learning, organisational memory, knowledge creation and organisational culture. It seems therefore that in order for KM to enhance organisational knowledge, it must permeate across the entire organisation to facilitate the development of knowledge at all levels and enable its diffusion to individuals and groups in accordance with the organisation's requirements (Frost, 2010). This view proposes that proper use of knowledge would likely increase the capability of any organisation to achieve its goals through overcoming certain limitations.

I have observed that some of the definitions that I have encountered are theoretical and descriptive. These definitions, albeit less precise than ideal for my research, influenced me to propose the following definition of KM for this project:

Knowledge management is the art of converting information through collaborative interactions into actionable knowledge in pursuit of organisational aims and objectives

3.5.2 *KM in the administration of traffic law infringements*

It can be deduced from the preceding section that KM has the potential to overcome the current challenges posed by the interorganisational processes of administering traffic offences. Applying the definitions of knowledge management to the administration of traffic offences, it seems reasonable to posit that the traffic departments of the issuing authorities and the private contractors should develop KM initiatives that encourage learning, creation, and retention to optimise the management of the knowledge they apply to their key business processes (Hussain *et al.*, 2004).

Hislop (2013) explored studies by Earl (2001), Hansen, Nohria and Tierney (1999), and Alvesson and Kärreman (2001). Earl was concerned with codifying knowledge in

an organisational database that could be used as a vital organisation resource. He suggested that this codified knowledge would be stored in the databases that would help the management team in running the organisation in a better manner. The method was further supported by Alvesson and Kärreman (2001), who referred to it as the “best practice” approach (Hislop, 2013, p.62). However, although the concept of coding, storing and transmitting knowledge in organisations is not new – it needs to be supported by training and employee development programs, organisational policies, routines, procedures, reports and manuals that have served this function for years (Alavi and Leidner, 1999) – a KM perspective offers mechanisms to systematise these processes.

In relation to the administration of traffic offences, codification would entail the manual or electronic completion of forms to create infringement reports as a build up to a knowledge base with formalised content that should then be accessed on an on-going basis to ensure standardised processes (Hansen *et al.*, 1999) of administering traffic offences. Once the codification process is completed, then Alavi and Leidner’s (2001) creation, storage/retrieval, transfer and application processes can be actualised. In practice, the administration of traffic offences entails filling in forms with raw infringement data (codification), sharing the completed forms electronically among administrators for verification and adjudication and applying the newly created infringement information to finalise or prosecute an infringement or offence.

3.6 Interorganisational knowledge management (IKM)

According to Lancini (2015), in order to optimise its effectiveness and achieve desired outcomes, an organisation must be able to leverage its interorganisational relationships (“social capital” according to Nahapiet and Ghoshal, 1998, in Lancini, 2015, p. 119). Nahapiet and Ghoshal posit that the concept of social capital is central to the comprehension of organisational dynamics, innovation, and value creation as it encourages cooperative behaviour, which is seemingly essential for interorganisational collaborations. Lancini drew on Malhotra *et al.*’s (2005) conceptual framework for business model innovation, which combines a relational view (Dyer and Singh, 1998) with the concept of absorptive capacity (Cohen and Levinthal, 1990) to study collaborative practice and concluded that the framework can be applied to organisations that seek to absorb and combine external knowledge to develop new knowledge in pursuit of their own organisational effectiveness.

So far, in this review of the literature, I have recognised the need to have interorganisational relationships that extend beyond the transactional level that currently characterises the administration of traffic infringements and offences. The value of more collaborative interorganisational relationships to manage knowledge is advocated in the literature by Malhotra *et al.* (2005, 2007) and Cao *et al.* (2010) as well as by Lancini (2015). Collaborative relationships are considered to be possible when two approaches to IKM, namely, the “integrative approach”, which refers to the codification and storage of knowledge, and the “interactive approach”, which emphasises knowledge exchange (Zack, 1999a), are actualised. The integrative approach facilitates ease of access by experts to codified knowledge, while the interactive approach tries to identify experts and create linkages among individuals in order to facilitate knowledge exchange through direct interactions (Zack, 1999a).

From an organisational capability’s perspective, Gold *et al.* (2001) argued that the KM process consists of four dimensions: knowledge acquisition, knowledge conversion, knowledge application, and knowledge protection. This model is sufficiently broad to be applied in the interorganisational administration of traffic offences as it emphasises that organisations must develop absorptive capacity, the ability to use prior knowledge to recognise the value of new information, assimilate it, apply it, and protect it to create new knowledge and capabilities (Zahra and George, 2002). The processing of traffic infringements is about acquiring the infringement data, converting the data into actionable records, applying explicit and tacit knowledge to produce prosecutable infringements and the protecting of these prosecutable infringements in the manner legally permissible for possible finalisation. These considerations informed my reading of the IKM literature.

3.6.1 *Interorganisational exchange of explicit and tacit knowledge*

Both explicit and tacit knowledge transfers have been analysed in the context of interorganisational relationships. For example, Inkpen and Dinur (1998) studied the exchange of explicit and tacit knowledge within a Japanese-American joint venture. They posit that whereas explicit knowledge transfer referred to product designs and specific manufacturing process exchanges between the partners, tacit knowledge was associated with culture and philosophy about business rather than knowledge covering specific rules or guidelines.

Notwithstanding the important distinction between explicit and tacit knowledge transfer in interorganisational collaborations, in most cases, both types of knowledge exchanges are likely to occur in alliances concurrently. Lei *et al.* (2001, p. 217) argue that

in practice, the distinction between explicit and tacit knowledge is not always very clear since a large component of both organisational and technical knowledge are interwoven with the firm's culture, product development routines, and human resource practices.

Thus, explicit and tacit knowledge in the administration of traffic offences can sometimes be difficult to disentangle, even though their transfer usually takes place through different means and processes. While explicit knowledge is codified and transferred in documents (such as records of fines, warrants, etc.) and other artefacts, tacit knowledge is more embedded in social relations and transferred primarily through direct contact and observation of behaviour.

3.6.2 *Interorganisational relationships in the administration of traffic offences in South Africa*

Figure 3.1 outlines the current relationships and processes in the interorganisational administration of traffic offences in South Africa. Following Zack's (1999a) logic, the first step in the process can be interpreted as an implementation of a well-structured repository for managing explicit knowledge while enabling interaction to integrate tacit knowledge.

Zack argues that integrative applications exhibit a sequential flow of explicit knowledge into and out of a repository, while the interactive applications are focussed primarily on supporting interaction among people holding tacit knowledge. The greatest impact for traffic offence administrators is therefore likely to come from combining the two approaches. Thus, I expect that the combination of integrative and interactive processes would permit traffic offence administrators to identify and deal with problems in a logical and timely manner. This would form the basis of development and direct application or integration of standard operating procedures in their own day-to-day workplaces. Developed in this way, standard operating procedures can become more relevant and be interwoven into the administrators' tacit experience and learning in a meaningful and lasting way.

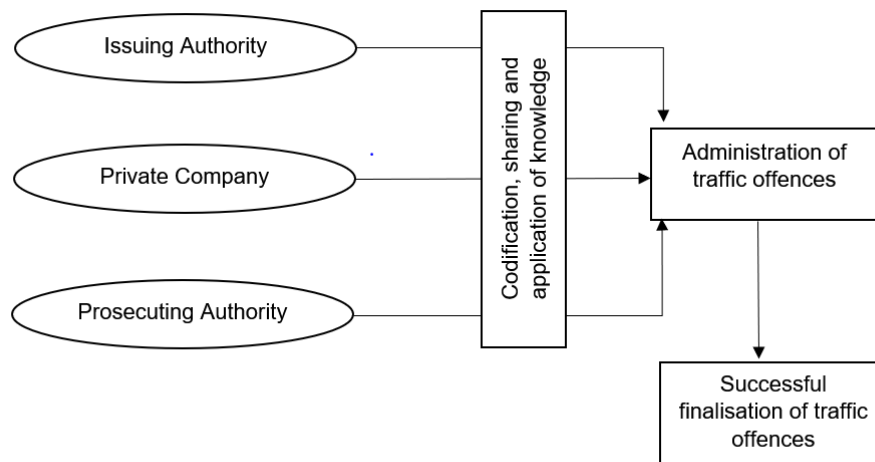


Figure 3.1: IKM processes in the administration of traffic offences in South Africa

In a similar vein to Zack (1999a), Dyer and Singh (1988) observed that adoption of forums for interactive development of emergent knowledge, alongside structured content and formal training, can create a continual cycle of knowledge creation and application. They further observed that tacit knowledge is likely to be made explicit via well-structured interorganisational collaborations and argue (following Nonaka, 1994) that the newly explicit knowledge can be exchanged using IT infrastructure and tacitly reapplied in context.

3.6.3 Interorganisational dependency

The specialised knowledge necessary for effective interorganisational administration does not reside in one organisation only but is located across organisations (Dyer and Singh, 1998). As a result, interorganisational collaborations are more effective when the participating organisations acknowledge their interdependencies (Dyer and Nobeoka, 2000). On this basis, I expect the administration of traffic offences to be improved if the participating organisations acknowledge their interorganisational dependencies.

3.6.4 Trust and collaboration in IKM

Consistent with the recommendations of Dyer and Singh (1998) and Nonaka (1994) to create knowledge through a continuous dialogue between tacit and explicit knowledge, and Dyer and Nobeoka (2000) to create new knowledge through collaboration, I propose that interorganisational collaboration among the

organisations involved in the administration of traffic offences has the potential to improve the level of finalisation of traffic infringements and fines. In particular, I expect dynamic interaction among administrators to create new knowledge that can be made explicit in the form of standard operating procedures for the finalisation of traffic offences. I expect this approach to improve, for example, the production of prosecutable evidence packs that contain all information required by the magistrates to decide on the cases before them. In my research context, as in others, the creation of credible new knowledge will depend on the frequency and the quality of the relationships among the collaborating organisations (Malhotra *et al.*, 2005).

3.7 Interorganisational knowledge management enablers

O'Dell *et al.* (1998) strongly maintain that the key reason KM efforts fail is that the enablers of KM remain poorly understood and managed. Allameh, Zare and Davoodi (2011) state that attention to enabling factors is essential because they encourage the role players to share their knowledge and experience with others while enabling concurrent and systematic growth of organisational knowledge. Various considerations of what constitutes KM enabling factors have been made. These are outlined in Table 3.2 and discussed in more detail below.

Table 3.2: Knowledge management enablers (Adapted from Allameh, Zare and Davoodi, 2011)

Author	Factors/enablers
Laupase (2003); Gold <i>et al.</i> (2001)	Organisational structure, culture and information technology
Syed-Ikhsan and Rowland (2004)	Organisational culture, organisational structure, technology, human sources and political factors
Ngoc (2005)	Organisational communication system, communal culture, transformational leadership and information technology
Botha <i>et al.</i> (2008)	Culture, technology, infrastructure and measures

After examining the viewpoints represented in Table 3.2, Allameh, Zare and Davoodi (2011) identified technology, structure and culture as the most important KM enabling factors. While different studies align themselves to the three enablers,

South African organisations operate in a unique environment with deep-rooted political and social requirements that require the integration of political factors and cultural diversity if KM is to be enabled (Kruger and Johnson, 2010). It is therefore likely that enabling factors such as organisational culture, organisational structure, technology, human sources and political factors (Syed-Ikhsan and Rowland, 2004) are particularly relevant for KM in South African organisations. Notably, South African authors, Botha *et al.* (2008) propose four enablers that appear to be more appropriate for my IKM context:

- Culture, as one which accommodates of KM, and KM processes, particularly knowledge sharing.
- Infrastructure, in the form of teams, support systems, collaboration and structures.
- Technology, as it can offer great advantages in certain areas.
- Measures, referring to having champions and facilitators, and a process for designing and managing change.

Culture, infrastructure and technology, while similar to Allameh, Zare and Davoodi's (2011) enablers of culture, structure and technology, respectively, are interpreted more broadly by Botha *et al.* (1998). I am also persuaded by Botha *et al.* (2008) that a fourth dimension is important in my research context. In recognition of South Africa's unique organisational environment, which is influenced by its social, political and economic history, I propose that, in addition to the three common KM enabling factors, *culture, infrastructure and technology*, the fourth enabler of IKM be named *oversight*. I propose "oversight" rather than "measures", as used by Botha *et al.* (2008) because it is more precise in my context. *Oversight* entails the verification of compliance with legal and administrative processes across organisations, which are required to successfully finalise the administration of traffic offences. I further propose that IKM that encompasses these four aspects within KM perspectives as depicted in Figure 3.2 would foster the sense of oneness and the positive perception that all role players pursue the same objectives. Each of the enablers is introduced in more detail below.

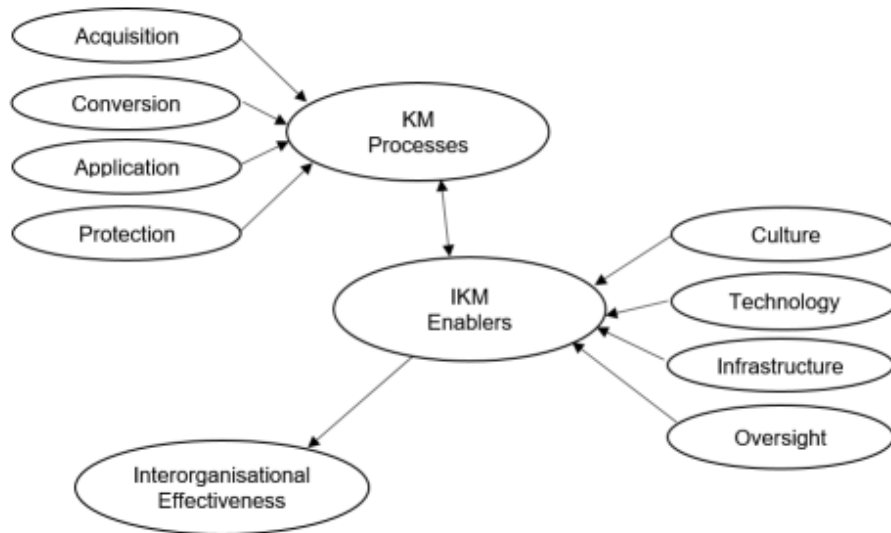


Figure 3.2: Relationship between KM processes, IKM enablers and interorganisational effectiveness

3.7.1 Culture

An appropriate environment for knowledge exchange and knowledge activities is possible when there is an effective organisational culture (Janz and Prasamphanich, 2003) in which trust, values, sociability and openness to stimulate people's interaction and knowledge sharing (Ngoc, 2005) exist. Opportunities for administrators to share knowledge openly to ensure successful KM programmes also depend on the collaboration environment (DeTienne *et al.*, 2004).

3.7.2 Technology

Information technology is one of the key enabling factors in KM (Davenport and Prusak, 2000). It can be classified into two types: decision-making technology (decision support systems, expert systems and executive information systems) and communication technologies (emails, video conferencing, electronic bulletin boards and computer conferencing) (Song *et al.*, 2001). Traffic law enforcement agencies tend to rely on the private companies' information technology infrastructure and its capabilities to support the administration of traffic law offences.

3.7.3 Infrastructure

The infrastructure consists of the organisational structures, written documentation, rules and procedures that affect the communication of knowledge (Allameh, Zare and Davoodi, 2011) and the degree to which formal rules, standard policies and

office procedures are controlled (Lee and Choi, 2003). Interorganisational structure needs to be responsive to IKM needs (Lee and Choi, 2003).

3.7.4 Oversight

In chapter 2, I argued that successful finalisation of traffic offences is ultimately related to the outcomes of the administrative processes, that is, compliance with the relevant statutes. These outcomes are often a result of interorganisational collaboration among the involved organisations (Laihonen and Sillanpää, 2014). Congruently, there seems to be a need for collaborative creation of interorganisational service processes that are aggregated rather than organisation-specific (Laihonen and Sillanpää, 2014). Oversight, as an additional KM enabler in an IKM setting redirects the mindset from individual organisations to a service system focus, such that the aspects of effectiveness and outcomes, the efficiency of the administrative network and the performance of individual actors are balanced (Laihonen, Jääskeläinen and Pekkola, 2014).

Building on Botha *et al.* (2008), I argue that oversight plays a significant role in enabling KM. Overseeing an implementation process and ongoing corrective actions increase the achievement of collaborative goals (Brews & Hunt, 1999), which is possible if there is constant monitoring of operational plan implementation. Notably, the implementation of collaborative strategies is influenced by the extent to which there exists an oversight structure (Huxham & Vangen, 2000). In this thesis, I draw on these observations to define an IKM oversight mechanism as one that involves:

- verification of how well actors and systems at the interorganisational level have legally and administratively performed the functions of knowledge acquisition, conversion, application and protection;
- verification of the extent to which relevant organisational and interorganisational knowledge (including knowledge in electronic form) is codified, stored and exchanged; and
- how the IKM system is supported by the management and infrastructure (Jennex and Olfman, 2005).

With respect to interorganisational collaboration in the administration of traffic offences, this definition implies that the administrators fail to achieve the desired

effect not because they are incapable of performing their administrative functions but because there are no institutional oversight mechanisms that encourage KM and IKM with the view of optimising successful finalisation of traffic offences.

3.8 Knowledge management strategies (pillars) for interorganisational teams

While the preceding section dealt with the general ways interorganisational knowledge can be managed, I argue in this section that the organisations involved in the administration of traffic offences should also consider investing in KM strategies that can enable and enhance the outcomes of the proposed interorganisational team structure.

It is important to ensure that the implementation of KM and IKM approaches should be done based on an agreed strategy to ensure that implementation proceeds in a way that is aligned with the agreed methods, targeted on the right problems, and coordinated with other existing change initiatives (Hansen *et al.* 1999). Hasanali (2002) argued that the success of a KM initiative depends on many factors that are either within an organisation's control, as well as some that are not. He classified critical success factors for KM into five primary categories: leadership; culture; structure, roles, and responsibilities; information technology infrastructure; measurement. Leadership; culture; structure, roles and responsibilities are about people, without whom the desired KM processes and IT infrastructure would be useless. Thus, Omotayo (2015) argues that to achieve the desired organisational performance, the focus of KM should be geared towards connecting people, processes, and technology to leverage knowledge.

Traffic infringement administrators face emergent knowledge needs as part of their routines. As discussed earlier, these can be met through tools, processes, systems and protocols to integrate and apply relevant knowledge. Thus, I propose that as a plausible IKM strategy, an interorganisational team structure to improve the administration of traffic offences be established on the pillars of managing knowledge across boundaries, organisational culture, management support and interpersonal relationships and trust, among the many different KM strategies as areas of emphasis for this thesis.

3.8.1 *Knowledge management across boundaries*

Literature states that collaboration within the interdisciplinary team is a challenge even with the presence of frequent communications and that barriers to effective knowledge delivery among team members exist because of knowledge boundary (Chu and Lee, 2014). Despite the use of common terminologies for communication, team members may interpret the same cluster of terms differently when they hold different understandings, assumptions and value schemes embedded in their professional fields (Chu and Lee, 2014). Such barriers which are commonly caused by knowledge itself usually results in ineffective knowledge exchange in interdisciplinary collaboration. Chu and Lee (2014) also noted that conflicts of interest among team members could also prevent effective collaboration. To mitigate these possible challenges, it is important to develop common meaning, which is described as a conduit that is useful to address interpretive differences manifested by KM across different boundaries (Carlile, 2004).

Carlile and Rebentisch (2003) discussed three properties of knowledge boundaries: difference, dependence and novelty. While acknowledging that novelty often arises when there is a lack of common knowledge to adequately share and assess domain-specific knowledge at a boundary, Carlile (2004) argues that the property of difference is of no consequence if there is no dependence. Due to the link between the actions and goals of the administrators of traffic offences, it can be argued that the participating organisations' administrators ought to take each's dependencies other into account if there are to successfully administer traffic offences to their finalisation.

Victor and Blackburn (1987) stipulated how the actions of actors define their success, specifying the ensuing link between the activities and goals of actors who are dependent on each other. Consistent with the perspective of coordination theory, Malone and Crowston (1994) defined coordination as the management of dependence among activities and resources. At issuing authority level, the dependence between quality infringement data and decryption, verification and adjudication recognise that a statutorily compliant traffic offence notice raises the chances of successful finalisation, while the desired prosecutability of the offence improves confidence by the courts that statutes and guidelines are being complied with.

There is an acknowledgement of the importance of innovatively developing common meaning as a way to address interpretive differences when managing knowledge across different boundaries (Carlile, 2004). Notably, in addition to the interpretive challenges of redistributing knowledge across boundaries (Nonaka and Takeuchi, 1995; Spender, 1996), moving situated knowledge across different domains is not always smooth (von Hippel, 1994; Tyre and von Hippel, 1997). Although Nonaka's description of the process of "externalisation", making tacit knowledge explicit, has been recognised as one of the most critical processes in knowledge conversion (Nonaka 1994), it does not recognise that in the course of making one's knowledge explicit, different interests are often revealed that create barriers to developing shared meanings. Under these circumstances, creating common meaning is not possible; what is required is an innovative process in which actors negotiate and are willing to change the knowledge and interests from their domain (Carlile, 2004).

In the administration of traffic offences, in particular, it is not just a matter of translating different meanings of knowledge, but of negotiating interests and enabling quality KM between actors (Wenger, 1998, Brown and Duguid, 2001). Given their focus on meaning, perspectives that take an interpretive approach frequently do not specify processes that deal with different interests and their political consequences (Carlile, 2004). In traffic offence administration, such might be achieved through the innovative approach of actualising the proposed interorganisational team-structure to enable the interpretive approach to prevail.

Focussing on the effectiveness of managing knowledge across boundaries has the potential to clarify the distinction between domain-specific knowledge and common knowledge at a boundary. The proposed interorganisational team structure should provide an added opportunity to acknowledge the importance of matching the capacity of the common knowledge (common lexicon, meaning, and interests) with the type of boundary faced, as well as ensuring that administrators have the ability to use that common knowledge or expertise (Black *et al.*, 2004). One way to achieve this might be to provide a prescriptive platform to address the challenges of managing knowledge across boundaries (Carlile, 2004).

It is common practice that in complex processes such as the administration of traffic offences, specialised knowledge is distributed across different domains and cannot

always be equally represented at the same time. An interpersonal understanding of knowledge at a boundary also specifies at a very concrete level the relationship between knowledge and power (Foucault 1980, Hardy and Clegg 1996). From this point of view, even when administrators have equal ability to use common knowledge to share and assess each other's domain-specific knowledge, power will still be exercised. Accordingly, I envisage that facilitation of an interorganisational team structure would need to ensure that the relative power of each administrator to represent differences and dependencies to each other is appropriately matched (Black *et al.*, 2004); thus, the knowledge and power each actor possesses would not generate negative results.

3.8.2 *Organisational culture*

Organisational culture regulates values and beliefs which are an integral part of what people choose to see and absorb (Davenport and Prusak 2000) and includes a shared perception of reality regarding the current status and how things should be. Willingness to share knowledge and conditions for knowledge sharing among members of the organisation are dependent on the organisation's culture, hence the interrelatedness of knowledge, knowledge sharing and organisational culture. Following Davenport and Prusak, I expect that, in order for the organisations involved in the administration of traffic infringements to make KM initiatives work in practice, the administrators within each organisation would have to be willing to share their knowledge with others. Consistent with Bukowitz and Williams (1999), Davenport and Prusak (2000) also posit that each participating organisations' management must understand culture both on an organisational and interorganisational level.

As alluded to earlier, the South African case is unique because apartheid policies institutionalised heterogeneity and divisions. Given that knowledge is entrenched in people and social structures and thus context-bound, inherent disparities shape distinct knowledge sharing behaviours and practices (Kamal, Manjit and Gurvinder 2007). Different behaviours emerge at different levels from the individual to the organisational level (Kamal, Manjit and Gurvinder, 2007). Singh (2007) highlights that, in South Africa, KM and knowledge sharing evolved along different paths. On the one hand, there are individuals who seek to preserve individualised knowledge, and on the other, there are those who seek to overcome it and replace it with a

common knowledge alternative. For example, strategic administrative positions were allocated along racial lines, thereby causing knowledge to be individualised along racial lines. Post-apartheid dispensation makes it mandatory for organisations to upskill the previously disadvantaged persons with the required operational knowledge.

These different paths not only permeate the administrative and social landscape but also lead to the evolution of diversity and heterogeneity within organisations. As it is apparent in South Africa, this can create a lack of trust, scepticism and subsequently hostility towards knowledge sharing (Kamal, Manjit and Gurvinder 2007). This not only compromises knowledge flow but makes the sharing process even more challenging (Cloete, 2007). Edge (2005, in Gaffoor and Cloete, 2010) cautions that the dynamics stemming from heterogeneity and multiculturalism usually lead to the development of a culture of knowledge hoarding and resistance.

At the organisational level, it is noteworthy that the issue of reciprocity is considered as one major influence on a culture's willingness to share knowledge (Davenport and Prusak, 2000). Given that the law requires traffic infringement administrators to execute their responsibilities with diligence, it is possible that the enhancement of their individual reputations as contributors to the successful prosecution of traffic offences could motivate them to share knowledge, given the expected outcome of knowledge sharing.

Following Hislop's (2013) definition of organisational culture, it seems plausible to suggest that organisations responsible for the administration of traffic offences could benefit from developing a culture that is characterised by the beliefs and behaviours shared by the interorganisational actors regarding what constitutes an appropriate way to think and act when collaboratively administering traffic offences using KM perspectives. If such a culture is embraced, administrative efficiency might be enhanced.

The promotion of such culture lies within the management of the organisations involved in the administration of traffic offences. For example, administrators of traffic offences, regardless of the organisations they work in, need to consider each other's working together as an important chain linked to ensure that traffic offences are successfully finalised. As the private company provides modernised end-to-end

support systems, the traffic chief has to ensure that the officers in their department are responsible and disciplined enough to ensure strict compliance with the standard operating procedures when preparing evidence required for prosecution of an alleged offender. On the other hand, the senior prosecutor's leadership should demonstrate an unwavering commitment to gathering substantially prosecutable evidence to guarantee successful prosecutions. Nevertheless, it seems reasonable that the promotion of a culture conducive for effective IKM initiatives would require leadership to create an environment in which knowledge sharing is regarded as a norm, that all role players have the sense of collective identity with high levels of interpersonal trust and respect for each other within their respective portfolios of contributing towards safer roads.

3.8.3 *Management support*

Perceived supervisory and collegial support for and encouragement of knowledge sharing also increase employees' knowledge exchange and their perceptions of the usefulness of knowledge sharing (Cabrera *et al.*, 2006). Knowledge management activities are reliant on communications networks and systems (Van de Ven, 2005). Management support will assist in the streamlining of communications linkages in order to enable KM to be efficiently conducted across the tripartite organisations. The implication for my research is that it is important to recognise that communication is vital to the success of any implementations of change within all participating organisations because it helps to reduce uncertainty and increase participants' confidence that the intended change is worth the effort (Carnall, 2007). Therefore, it is important to develop communication strategies for effective KM implementation within the participating organisations.

However, I envisage that the administrators would first have to understand how the IKM initiatives will impact their roles since the success of the KM depends on employees' preparedness to participate. Employees may also fail to conform to the change if they perceive that they will not be acknowledged within the organisation after they have effectively collaborated towards achieving the traffic law enforcement objectives. Hence, it is upon the leadership to communicate the benefits that are achieved on an ongoing basis as cases are successfully finalised.

Related to this is the probable role of the above-mentioned organisational culture in influencing KM practice and success. A “knowledge culture” is one particular variety of organisational culture representing a “way of organisational life that...enables and motivates people to create, share and utilise knowledge for the benefit and enduring success of the organisation” (Oliver and Reddy Kandadi, 2006, p. 8). Congruently, strong support from executives remains crucial for transformation-oriented knowledge projects (Davenport, Davies and Grimes, 1998) as is the case with the South African private-public organisational environment which is in a transformation state.

Back-up from the top management team plays a crucial role in influencing the overall organisational change efforts about KM (Davenport, Davies and Grimes, 1998). Organisations look upon the top managers to see that they will first show support for the perceived change (Jones *et al.*, 2006) towards IKM. In our case, the organisational leadership would likely have to consider mobilising the officers and administrators within their organisations to embrace IKM practices.

The same case would probably apply to the private contracting companies and within the courts. If the administrators within these organisations feel that the managers intend to use their knowledge for own benefits, rather than for achieving the acceptable performance standards set by enforcement legislation, they may show retaliation towards the change (Davenport, Davies and Grimes, 1998).

3.8.4 *Interpersonal relationships and trust*

Lancini (2005) draws on Alavi (2000) and Gupta and Govindarajan (2000) to argue that interorganisational knowledge exchange has a positive effect on knowledge contribution and knowledge diffusion but highlights the need for trust. The role of trust in collaboration and the need for a balance between trust and control in order to implement IKM initiatives is underscored by several authors in the KM literature (Gallivan and Depledge, 2003). It is therefore likely to be necessary for traffic officers and prosecutors to have full confidence and trust not only in one another but also that the systems provided by the private partners are competently designed to assist in producing prosecutable evidence and to trust the private sector employees’ honesty and sincerity of intention.

It was revealed that social exchange theory was used by researchers to examine how trust and justice, two key components of interpersonal relationships (Organ, 1990; Robinson, 1996, in Settoon and Mossholder, 2002), relate to knowledge sharing. Mayer *et al.* (1995) conceptualised trust as a set of specific beliefs dealing primarily with the benevolence, competence, and integrity of another party, while Cropanzano and Greenberg (1997) observed that justice reflects perceptions of fairness and assessment concerning the appropriateness of performance outcomes or processes.

Further, Bakker *et al.* (2006) examined three dimensions of trustworthiness: capability, integrity, and benevolence and found that individuals tended to share less knowledge with team members who were perceived to be very capable (capability) and share more knowledge when they believed other team members were honest, fair and followed principles (integrity). Law enforcement demands of administrators to conduct themselves and their responsibilities with the utmost integrity. In view thereof, I would posit that there is perhaps a good reason why IKM initiatives should be less challenging to implement in the law enforcement agencies and related structures.

Traffic offence administrators ought to possess complementary organisation-specific resources, which when brought together, provide the potential for collaborative advantage (Gould *et al.*, 1999; Huxham, 1996; Spekman *et al.*, 1998). Although the intended collaboration will be established to help satisfy goals and interests that are relevant to each organisation, individuals may be looking to satisfy personal agendas, both of which may be hidden.

Contributions to the practice-oriented theory on collaboration (Gray, 1989; Huxham, 1996; Osborn and Hagedoorn, 1997; Waddock, 1989) with a particular focus on how to manage and build trust are documented in Vangen and Huxham's (2003) article that focussed on the provision of practice-oriented theory into the management of trust in interorganisational collaborations. In this article, it is argued that trust is an essential ingredient for successful collaboration. While suggesting that even if the trust does not already exist, it may emerge from formal and informal processes of transacting (Ring, 1997), it should be noted that power (Calton and Lad, 1995; Lane

and Bachmann, 1998) and control (Das and Teng, 1998; Gulati, 1998; Sitkin *et al.*, 1998) are concepts perceived as being closely related to trust.

Collaborative processes are inherently risky and vulnerable as inevitably some will be more central to the enactment of the collaborative agenda than are others (Vangen and Huxham, 2003) giving rise to possible mistrust. Consistent with the consequential linkages of processes in the administration of traffic offences, Sharfman *et al.* (1991, p. 185) argued that “the advantages of sharing resources such as technology, expertise, and quality management outweigh (at least to some extent) the disadvantages stemming from mistrust”.

Vangen and Huxham’s (2003) theory clarifies different implications for initiating and sustaining the trust-building loop across different situations and argues that the small-wins approach (Bryson, 1988) to trust building within which trust is built incrementally via the successful implementation of modest collaborative initiatives is the preferred strategy. In the case of traffic law administration, the interorganisational team structure will be conscientious to the fact that trust management is about managing the risk and vulnerability inherent in the collaborative situation.

3.9 Conclusion

Knowledge is an essential attribute for the successful administration of traffic offences. Some authors like Epetimehin and Ekundayo (2011) see knowledge as an intangible asset acquired through complex cognitive processes of perception, communication, learning, association and reasoning. However, within the context of this research, it is more appropriate to represent knowledge as information combined with context, interpretation, reflection, experience and perspective that adds a new level of insight (Davenport, De Long and Beer, 1998) to enable administrators to competently discharge their responsibilities in the administration of traffic offences. Although the statutes and standards are fundamental repositories of knowledge for traffic law enforcement, knowledge is also encoded in manuals, guidelines, and procedures. It was, therefore, likely that organisational routines, processes, operating practices, norms and cultures would determine the quality of organisational knowledge in my research.

Notably, organisations should maintain an appropriate balance between explicit and tacit knowledge. Regardless of which of the two is more valuable, the two are

mutually dependent and reinforce qualities of knowledge. The inseparable linkage of tacit and explicit knowledge suggests that, in most cases, it is individuals with a requisite level of shared knowledge that can truly exchange knowledge. In other words, if tacit knowledge is necessary to the understanding of explicit knowledge, then in order for the issuing authority's and prosecution authority's officials to understand the private company's employees' knowledge, there would have to be some overlap in their fundamental knowledge bases (Ivari and Linger 1999; Tuomi 1999).

I have demonstrated through this literature review that KM is a key driver of organisational performance (Bosua and Venkitachalam, 2013). The importance of KM, along with the organisationally embedded nature of knowledge about traffic law enforcement and its administration, implies that the participating organisations need to create, manage, share and utilise knowledge effectively in order to take full advantage of their combined knowledge (Teece, Pisano, and Shuen, 1997; Kamhawi, 2012). However, achieving such leverage is conditional on the organisations acknowledging the significance of the three key components of KM: people, processes and technology (Omotayo, 2015). From this point of view, the private company can provide an efficient end-to-end technological solution, but the people-driven processes require KM strategies and enablers that can competently support their actualisation.

For instance, administrators of traffic offences ought to possess critical intellectual capital that fosters interorganisational collaborations. To realise these interorganisational collaborations and knowledge sharing, the participating organisations need an integrated KM approach. This is because, from a KM-based perspective, it is probably challenging to improve administrative efficiencies and improve service delivery if the potential of internally or externally carrying out the major KM tasks is not appropriately approached from an IKM perspective.

Based on the literature reviewed in this chapter, I have concluded that a KM and IKM intervention is likely to improve the effective administration of traffic offences. In particular, it would appear that all participants in the process would need to apply substantial effort and commitment to creating, explicating, sharing, applying, and improving their knowledge in order to be able to argue that effective IKM is crucial for

the successful finalisation of traffic offences. Simply put, I suggest that effective administration of traffic offences leads to the successful finalisation of traffic offences.

Interorganisational knowledge sharing appears to be vital for the effective administration of traffic offences. In practical terms, the issuing authorities, the private contractors and the courts need to work together to administer offences successfully to support the enforcement of the traffic laws of South Africa. In this regard, I expect appropriate KM and IKM approaches, as well as an interorganisational structure to oversee the quality of the documents provided to the courts, to contribute to the successful finalisation of traffic offences in South Africa. The methods I adopted to explore the possible usefulness of the KM and IKM practices in addressing the research problem, as well as the establishment of an interorganisational oversight structure, are described in the next chapter.

CHAPTER 4. RESEARCH METHODOLOGY

4.1 Introduction

The research methodology is intended to, among other things, guide the researcher to conduct rigorous research, and guarantee effective collaboration of the participants during the entire research period. Due to the nature of the study, which involved collaborative action learning between my company, the issuing authority and the prosecuting authority in the Midvaal Local Municipality of South Africa, I considered participatory action research to be the most appropriate research method. This chapter presents my approach to the research and details of the methods used.

4.2 The researcher's organisational role

I hold the position of Chief Executive Officer of Mavambo Intelligent Transport Solutions, a private company that is contracted to the issuing authority, Midvaal Local Municipality, to provide speed enforcement infrastructure and back-office support services for the administration of traffic offences. Action research allowed me to improve both action and research outcomes through a process of iteration (Dick, 1993; Sankaran, 2001). Since my main intentions were to bring about change to the identified problem, as well as acquire my doctoral degree (Dick, 2002), the action research framework with its dual outcome of action and research, make it most appropriate for my study.

4.3 My research philosophy

According to Saunders *et al.* (2016), research philosophy concerns the development of knowledge and the nature of that knowledge, and this principal term can be expressed in two ways, namely, ontology and epistemology. Ontology is a system of belief that reflects an interpretation by an individual about what constitutes a fact and is defined by Gilchrist (2003, p.7) as “the science or study of being”. Epistemology concerns what constitutes acceptable knowledge (Saunders *et al.*, 2016).

The successful finalisation of traffic offences is a result of a process involving a complex mixture of phenomena. These phenomena include social interactions and physical factors, such as the organisation type in which the administrators work as

well as the legislative, governance and operational guidelines to which individuals attach certain meanings which are manifested in their operational practices.

Accordingly, the ontological position of subjectivism is most appropriate for this study since the administrators attach their own individual meanings to how they execute their functions at their respective workplaces, as well as the way they think that those functions should be performed. Hence, the administration of traffic offences is a process that is continually created and re-created through a complex array of phenomena which include social interactions and physical factors such as the operational and related infrastructure to which individuals attach certain meanings.

Remenyi *et al.* (1998, p. 35) stress the necessity to study “the details of the situation to understand the reality or perhaps a reality working behind them”. This is often associated with the term social constructionism, which follows from the view that it is necessary for the researcher to explore the subjective meanings motivating the actions of social actors in order to be able to understand these actions (Saunders *et al.*, 2016).

In the case of this action research, it is my role as the researcher to explore the subjective reality of the participants in relation to how they are implementing KM and IKM approaches in order to be able to understand and make sense of their actions and intentions in a meaningful way. The research focuses on the processes in the administration of traffic offences, a reality behind these processes and the participants’ subjective meanings attached to the processes.

My epistemological orientation of social constructivism is equally appropriate because this action research is a collaborative process between myself as the principal researcher and the participants from the involved organisations in the construction of new ways of knowledge (Losantos *et al.*, 2016). The social constructionism paradigm enabled me to be transparent in data collection and the subsequent analysis, which includes my relationship with the participants as an active part of the data. Thus, the findings presented in this thesis are a result of a subjective construction from the interactions between the participants and me.

4.4 Research approach: Action research

When Lewin (1946) first coined the term “action research”, he described it as “comparative research on the conditions and effects of various forms of social action

and research leading to social action” (p. 35) using a process of a “spiral of steps, each of which is composed of a circle of planning, action, and fact-finding about the result of the action” (p. 38). Since then, different authors have developed different meanings of the phrase, action research (Adelman, 1993) along with different approaches. However, for the purpose of this study, I adopted Gilmore *et al.*'s (1986) action research approach. This approach features a commitment to a system of study that adopts collaboration among members of the system to achieve the desired action. In this approach, co-learning is designated as the core aspect of the research. Participants in my study were drawn from the traffic department of the issuing authority, the private company and the prosecuting authority, the three organisations whose collaborative actions are required for the administration of traffic offences. As such, this study required collaborative participation with the selected experienced participants in an effort to ensure that the outcomes of the study applied to the involved organisations.

Through a participatory action research approach, the participants, being central to the research, generated and shared ideas in the real work setting in an effort to improve their workplace-based practices. This approach allowed me to research in a scholarly manner while remaining focused on the action learning purpose of the action research approach adopted in this research.

Action researchers either participate directly or intervene in a situation or phenomenon in order to apply theory and evaluate the usefulness of that theory (Dick, 1993). In line with Dick's view, I used action research in this study, not only to test an intervention, but also to apply reflexivity and evaluate the usefulness of knowledge management theory in addressing the practical problem.

4.5 Research design: Action research on action learning

Action research is a cyclical iterative process of action and reflection on and in action, which is systematic, rigorous, scrutinised, verifiable, and made public (Zuber-Skerritt, 2000). Action learning is a process in which a group of people come together regularly to help each other to learn from their experience (Dick, 1997). My study involved organisational representatives in action learning about knowledge and its management to improve the prosecution of traffic offences through participation. I conducted action research on this process. The relationship between my action

research and thesis writing and the action learning cycles in this study are illustrated in Figure 4.1 and introduced in this section.

4.5.1 *Action research iterations*

This study's action research design followed a characteristic iterative cycle. In line with Zuber-Skerritt (2000), I adopted an exploratory stance of understanding the problem and developing action plans at the initial stage, followed by an action learning process through which organisational participants learnt from and through action and concrete experience and took action as a result of their learning. This second iteration was also iterative as participants took action within their respective organisations based on suggested improvements, reflected on practice, took further action, reflected on the revised practice and developed implementation plans. The final action research iteration was the process of thesis writing. In practical terms, the design had three action research cycles, as shown in Figure 4.1: (AR1) initial exploration of the problem, including meetings with the traffic and prosecution chiefs, (AR2) the creation and facilitation of the learning sets and testing of a potential new oversight mechanism for the administration of traffic offences and (AR3) writing this thesis, including making revisions in response to feedback from my supervisors and editors.

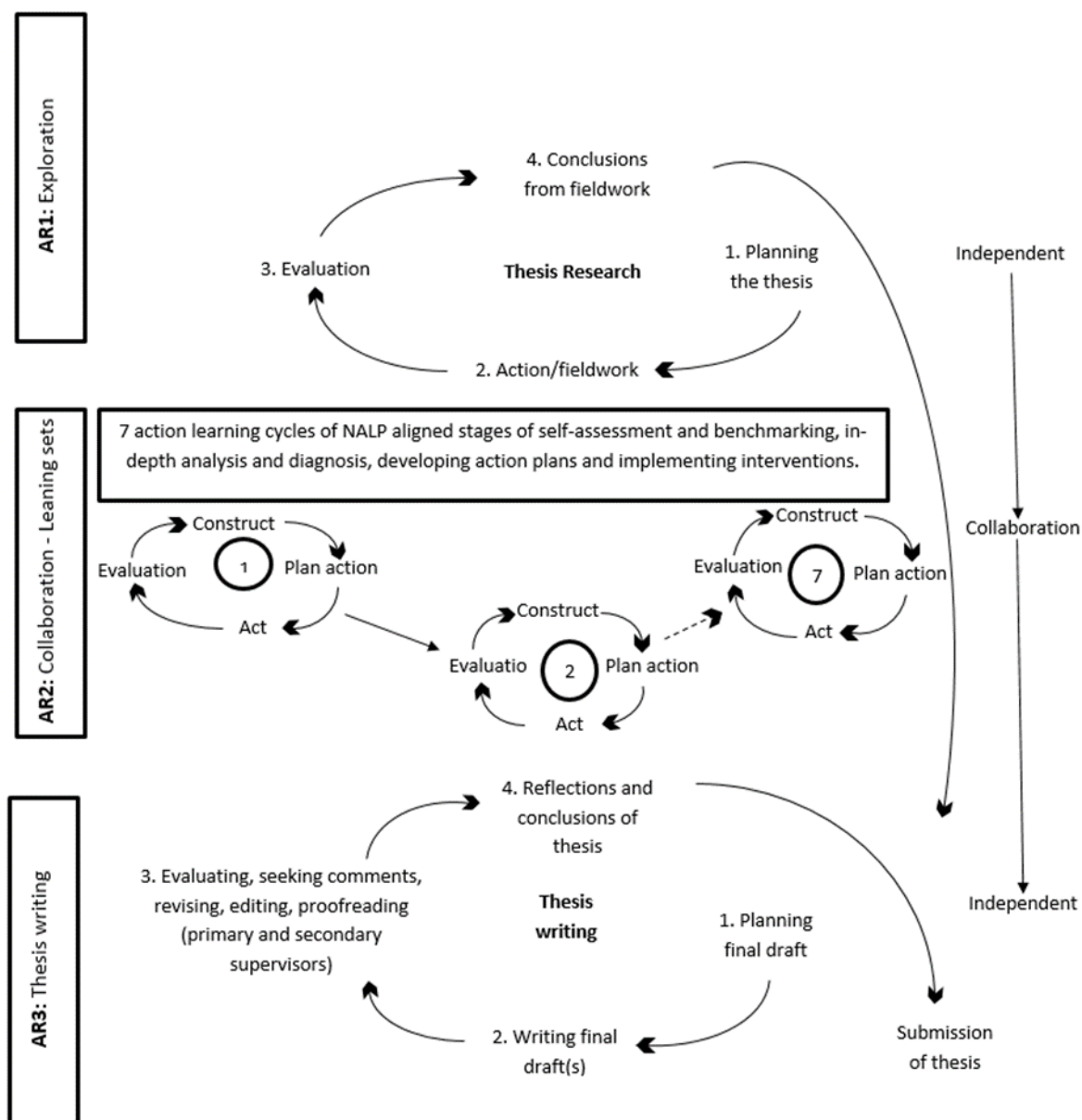


Figure 4.1: Action research thesis writing model and action research iterations in this study (adapted from Zuber-Skerritt and Fletcher, 2007, p. 421)

4.5.2 The interorganisational action learning process

I considered action learning to be the appropriate tool for developing the required collaboration and integration because it can break down barriers to efficiency and effectiveness that exist between the complementing functions of administering traffic offences across the participating organisations (Coughlan and Coughlan, 2004). Because the research took place in an interorganisational setting, I adopted (Coughlan *et al.*, 2002)'s NALP to guide the action learning process. The NALP was

specifically developed for interorganisational action learning and has been applied successfully in complex public-private sector projects (Coughlan and Coghlan, 2004). It has the potential to fulfil the objectives of facilitating the improvement of practice and performance in the participating organisations through collaborative action learning as well as the development of a contingent approach to address the need for improvement of operations practice and performance in those organisations (Coughlan *et al.*, 2002).

In line with the NALP, an action learning set was structured to work parallel to existing formal organisational systems. The overall strategy in this design sought to integrate the different participative learning components of the study in a coherent and logical way to ensure that the research problem was effectively addressed. Because the design constitutes the blueprint for the collection and analysis of data, its function was to ensure that the evidence obtained guided me, as the principal researcher, to appropriately guide my research participants as co-researchers to effectively address the research problem logically and as unambiguously as possible (De Vaus, 2001). The interorganisational learning was, thus, designed to provide an opportunity for learning set members to reflect on the problem with colleagues who have similar levels of responsibility in their respective organisations, acquire the required motivation to confront the problem, think differently and learn as they planned and took action.

I guided the learning set through a sequence of meetings and actions that addressed the themes and research questions introduced in Chapter 1. As practically possible, the learning set meetings followed a sequence defined by the themes and research questions that guided this research. In each meeting, participants reviewed the research questions relevant to the discussion topics and took or planned action to answer these questions. This is congruent with Mouton's (1996, p. 175) statement that the research design assists to "plan, structure and execute" the research to maximise the "validity of the findings".

Although the first iteration of action research iteration in this study included action to understand the problem at the researcher level, the understanding of the problem continued with the learning set as our plans were constructed to lead to some form of intervention (or a proposal for an intervention) to improve successful finalisation of

traffic offences. After initial consideration of the problem, the learning set worked in several cycles; each centred on the action (the "action" in action learning) and observations on the action. Arising out of plans made at each learning set meeting, interventional strategies were carried out and tested in the respective organisational settings, and evaluated in subsequent meetings, continuing until sufficient understanding of, and in some instances, a valid implementation solution for the problem was achieved. Through the action learning process, the participants gained a deeper understanding of the knowledge management practices involved in the administration of traffic offences for successful finalisation and prosecution, starting with conceptualising and particularising the problem and moving through several interventions and evaluations (as recommended by Labaree, 2017). In this way, the participants learnt through their actions and their joint deliberations on them.

As Dick (2002) contended, good research is partly created by and helps to create the research situation and the research questions. Although I used the initial themes and research questions to structure for the meetings, the learning set agreed that the research questions could be developed or refined at any stages of the study. The empirical research question (RQ) 3.4, "How well can a knowledge management intervention improve the caseload finalisation?" was developed during the learning set process. This question guided the proposed changes to the administration of traffic fines that were tested in the courts.

More detail of the action learning process adopted in this research is discussed in Section 4.7.

4.6 Participants

Action research should be designed in a manner that fits the skills and preferences of those involved (Dick, 1997). Accordingly, the action learning process was designed to ensure that there was equal involvement of appropriately experienced participants to ensure that the focus of the research and its results are reflective of all participating organisations' processes (Lucock *et al.*, 2007). With this in mind, I established an interorganisational action learning set comprising representatives of the three main organisations involved in the administration of traffic law enforcement in the Midvaal Local Municipality, namely the issuing authority, prosecuting authority and a private company (refer to Figure 2.2). The composition of the participants

(whose details are in Table 4.1) was informed by participatory action research principles which affirm that experience can be a basis of knowing and that a legitimate form of knowledge that influences practice can be brought about by experiential learning (Kolb, 2015). The table includes data about the two senior officers who, although not members of the learning set, approved this research and participated in some learning set activities. This section describes how appropriate learning set members were identified and recruited.

Table 4.1: Particulars of participants

Participant ID	LS member	Position in organisation	Experience in position (years)
CTO	No	Chief Traffic Officer	25
SP	No	Senior Prosecutor	20
PRO1	Yes	Traffic Superintendent Law Enforcement and Designated Prosecutor	20
PRO2	Yes	Traffic Assistant Superintendent and Court Attendance Liaison (Clerk of the Court)	18
IA1	Yes	Issuing Authority Back-Office Senior Clerk (Traffic Officer)	16
IA2	Yes	Issuing Authority Back-Office Senior Administrative Officer (Supervisor)	14
PC1	Yes	Principal Researcher and Private Company CEO	7
PC2	Yes	Private Company Branch Manager	4
PC3	Yes	Private Company IT Manager	4

4.6.1 *Recruitment*

There are certain ethical issues that every researcher should consider during the participant recruitment process and which I also considered during my research (Schmuck, 2006). These include:

- Participants are to be selected equitably. This factor is of considerable importance for studies that involve participants from two or more organisations or fields. The number of participants from every organisation should match the requirements of the study.
- Minimal pressure on participants. The potential participants are to be recruited without exerting physical, mental, or other means of pressure.
- Use of bias-free presentation. The researcher should not use any means to lure the participants of the study. The individuals must be selected in a transparent manner that does not contravene ethical standards of research.

Prior to recruitment of the participants and initiation of the learning circle component of my action research project, I met with the local traffic chief and the senior prosecutor to present the problem statement and obtain a joint understanding of the problem and approval to address it with an interorganisational learning set. Although there was a delay from the prosecuting authority, the required approval from the participating organisations for the project was obtained before the commencement of the study (Appendix A).

Following the authorisation to conduct the study, the participants were selected carefully. The traffic chief, the senior prosecutor and I, as the owner of the participating private company, identified appropriate organisational representatives who we were satisfied had the required expertise to participate effectively in the interorganisational learning set. The validity of this selection was based on the selection team's professional experience working with staff in their respective organisations.

In line with the research design, the traffic chief and the senior prosecutor were requested to assign at least two officials from their respective organisations. These officials, who are directly involved in the administration of traffic offences, joined two

members of my organisation who are responsible for back-office traffic offence administrative support functions. I facilitated and participated in the learning set.

After recruitment and initial orientation of the participants, which took place through an informal meeting over lunch with the prospective participants, each participant was issued with a participant information sheet (Appendix B) and a consent form (Appendix C) to obtain their informed consent.

4.6.2 Participants

In addition to me as an insider action researcher and CEO of the private company, the learning set comprised of a traffic officer and administrative supervisor from the issuing authority, a Branch Manager and IT Manager from the private company, and a traffic prosecutor and a Clerk of the Court from the prosecuting authority. All the participants occupied senior positions in their respective organisational responsibilities (Table 4.1).

4.6.3 Dual role of scholar-practitioner

My involvement in the action research was that of an insider-action researcher with a dual role as a scholar-practitioner and facilitator. Sound action research in real-work settings guarantees scholarly rigour while remaining constant to the experiential knowledge and goals of the participants (Melrose, 2001).

As an insider-researcher, I found the process to be exciting, demanding and stimulating as I managed to develop new professional knowledge about and development prospects for the systems in which the involved organisations operate. I was able to speak the same insider language, understanding sufficiently the organisational values and cultures as well as the formal and informal power structures. Accordingly, I was able to integrate the roles, politics and ethics by making a clear distinction at the beginning of the research process between engaging in action learning to improve my own practice and the need to report on the action research for academic purposes. Mindful of the need to maintain a reasonable balance between action-oriented activities and research-oriented activities, I relied on Winter's (1989) criteria of validity based on the "six principles" of carrying out rigour in action research. Winter suggested that a study should demonstrate a reflective critique, dialectic critique, substantiate collaboration, risk and plural

structure, and lastly, show the transformation of the congruent relationship between theory and practice.

The reflective process, which is inherent in the cycles of action research, played an important part in my research. This aspect is presented in greater detail in Chapter 5. The dialectic critique involved the assembling of my work background, the political and operational climate that informed my thinking and how that thinking influenced what I had learnt about research as it impacts on my philosophical approach and finally how the navigated alternative ways to accommodate new ideas that I confronted on my journey. Working in collaboration with participants who possessed the experience to engage and deliberate within the LS, broadened and enriched my perspectives. Inviting an issuing authority that has given me a performance-based term contract to participate in the study was risky since it did not just expose me, but also my company to a possibility of jeopardising the service contract. At the same time, the exploration of possibilities for transformation through a change process would impact all role players, including the prosecuting authorities' methods of operations. Lastly, the interdependent and complementary phases of the change process demonstrated the harmonious transformation of the congruent relationship between theory and practice, as demonstrated by the successful finalisation of all cases presented to the court.

4.7 Learning set method

As outlined in Chapter 3, I envisaged strategic collaboration, KM and integrated KM to be necessary for successful finalisation and prosecution of traffic offences. To develop these factors, I opted for an interorganisational action learning method that enhances collaboration and integration so that existing barriers to efficiency and effectiveness in the complementary functions within the three organisations could be broken down. Importantly, I believed that this study would benefit from a process that helped to build trusting relationships and foster partnership and cooperation among participating organisations. Assuming that the participating organisations' mutual interest is to successfully finalise traffic offences, participants in the interorganisational learning set would, by encountering the unfamiliar, have the opportunity to apply fresh thinking to problems irrespective of prior knowledge or expertise. By adopting the NALP framework and structuring the interorganisational learning set to work parallel to existing formal organisational systems, I aimed to

provide a conducive environment for questioning and reflection in action. In line with the NALP, I designed the learning set process in seven actions.

My study revolved around effective management of knowledge within the three complementary organisations to ensure that traffic offences are successfully finalised. In line with the reviewed literature on KM strategy, I assumed that the integration of separate KM processes would be possible only when the respective organisational systems were strategically integrated. Similar to the four sequences of actions envisaged by Coughlan *et al.*, (2002) the NALP (self-assessment and feedback, action planning and evaluation of plans, action learning and reflection, and evaluation and distillation of learning), which forms the core of the NALP approach, my interorganisational action learning set progressed through those four action sequence stages during its NALP aligned collaborative action learning approach. The four core sequences of actions adopted in this research are: self-assessment and benchmarking, in-depth analyses and diagnoses, developing action plans, and implementing improvements based on the lessons learnt. Table 4.2 presents Coughlan *et al.*'s (2002) description of each action mapped to the actions and sequential stages adapted for this study. The table further shows how each action in this research maps to the research questions for the study. The sequence of actions was re-used iteratively, and the themes guiding the research questions could also overflow across sequence as the research required (see Figure 4.1). Section 4.7.2 presents further details of the LS method and associated actions.

Table 4.2: Actions in this study aligned to the NALP (Coughlan *et al.*, 2002)

Actions	NALP Action	This Research	NALP Action Sequence	RQ
1	Completion and sharing of feedback from self-assessment instruments by learning network members	Assessment of regulatory and operational knowledge-based instruments and exchanging feedback	Self-assessment and benchmarking	Theme 1: - RQ 1.1-1.3
2	Monthly presentations to a learning network on progress or lack thereof	Presentations on progress reports based on the implementation of change initiatives	In-depth analyses and diagnoses	Theme 1: - RQ 1.1-1.3
3	Receiving peer and supervisor feedback	Receiving feedback on change initiatives from LS members and superiors	Self-assessment and benchmarking	Theme 2: - RQ 2.1-2.4
4	Complex learning network issues addressed by professionals	Giving feedback to superiors – sharing problems, concerns and development of intervention mechanism	In-depth analyses and diagnoses	Theme 2: - RQ 2.1-2.4
			Developing action plans	
5	Receiving tailored reading material	Taking action at the individual workplace in the light of suggested change initiatives	Implementing improvements based on the lessons learnt	Theme 3: - RQ 3.1-3.4
6	Network leaders' one-on-one coaching to own organisational representatives	Preparing court documents under supervision (oversight structure) and submitting documents to the court		Theme 3: - RQ 3.1-3.4
7	Learning networks leaders visit firms with a focus on issues that emerged from the action learning process	Attending court and determination of future action based on the court decision		Theme 3: - RQ 3.1-3.4

The traffic chief as the head of traffic law enforcement in the Midvaal Local Municipality, the senior prosecutor as the head of prosecuting authority in the Midvaal Local Municipality and myself, as the leader of the private company, were unanimous that we are engaged in continuous innovation to effect tangible improvements in our organisations. The interorganisational action learning group acted as a set of loosely coupled peer systems in which the members were provided with opportunities to plan, initiate and manage the introduction of change into their organisations. The loose coupling was necessary in order to avoid hierarchical control and to preserve a degree of independence and organisational identity while maintaining organisational autonomy (Weick, 1976).

4.7.1 Learning set principles

The interorganisational learning set method was designed to enable reflective listening and responsiveness to the contributions of individual group members. Mechanisms were put in place to allow systemic participation of all members. Tangible representations of these mechanisms included an overview of the steps in action learning and written: "Rules of Engagement" (Appendix D). For the purpose of my project, the group had to meet regularly as scheduled (see Table 4.3). During every meeting, the members had the opportunity to present their observations and discuss recommended actions. Furthermore, actions on recommendations planned at previous meetings were presented and discussed by the LS members.

A process of critical reflection was used to foster learning in the learning set meetings. We adopted a spiral process which alternated between action and critical reflection, as proposed by Dick and Dalmau (1999) and from which we learnt both by acting more intentionally and by being critically reflective after the event.

The action learning method was to provide a process through which all participants could learn. The action learning set was to encourage each group member to come up with more effective conclusions that can be used in drawing the appropriate conclusions from the study, particularly in relation to the research questions. The learning set was also to give every member the opportunity to present their problems and also to comment on the opinions of others.

In addition to establishing a learning set that is effective because members have not been pressured to join, I encouraged learning set members to review the rules of

engagement – taking responsibility for one’s actions, respect for other members’ views, and exhibiting honesty with other members during each meeting. This approach resulted in observable benefits that included improving my facilitation and problem-solving capacity, helping all participants to solve complex tasks and providing an opportunity for personal development.

4.7.2 Learning set programme

The interorganisational learning set programme followed seven actions informed by the NALP, as shown in Figure 4.2. Each action addressed one or more different issues and incorporated schedules for action to be taken inside each participating organisation. The learning set met nine times. Seven meetings aligned to the NALP actions were originally planned. The two final meetings supplemented the planned learning set process. The meeting schedule, purpose and associated NALP action constructed in terms of the protocol described in Annexure E are summarised in Table 4.3. More detail of each action follows the table.

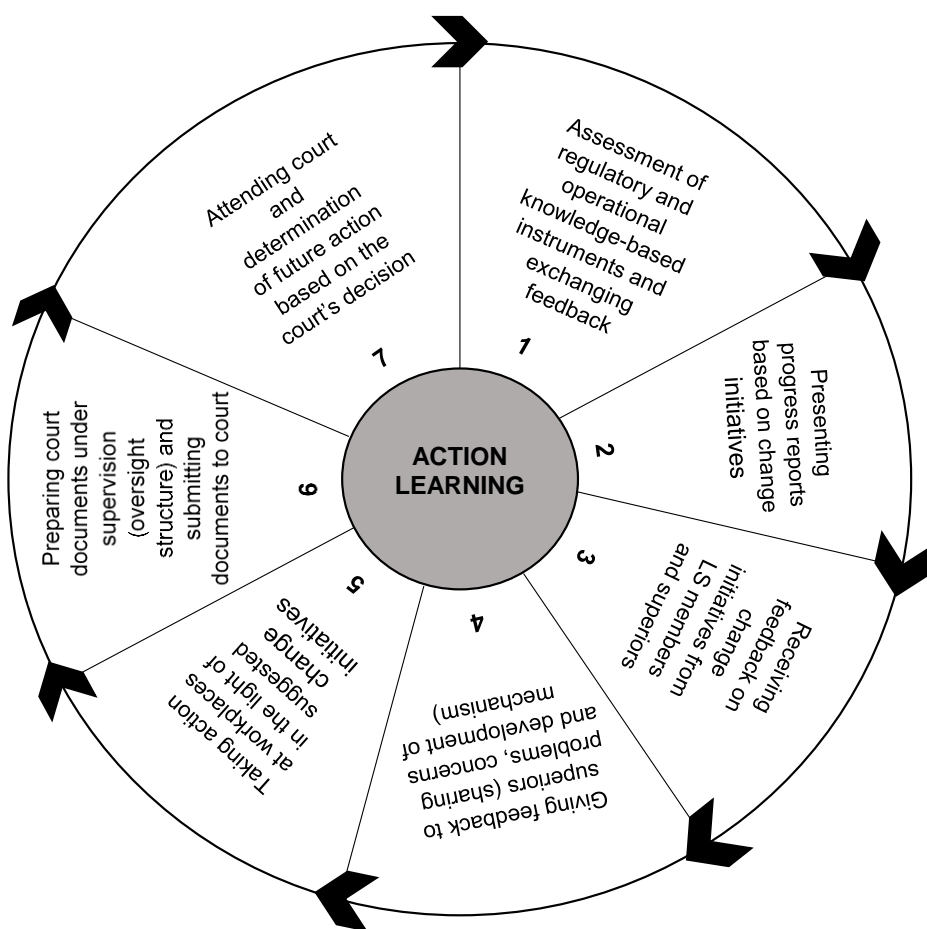


Figure 4.2: Actions in the NALP aligned with the actions of action learning in this study (adapted from Zuber-Skerritt, 2000)

Table 4.3: LS meeting schedule showing alignment to NALP actions

Date	Meeting Purpose	NALP aligned action
Sep. 7, 2016	Briefing by the researcher with all participants' organisational chiefs as well as the LS members. Initiate organisational action.	Action 1: Assessment of regulatory and operational knowledge-based instruments.
Sep. 21, 2016	Feedback LS meeting without superiors to compare (evaluate) results of the individual assessment of knowledge resources and plan implementation test strategies	Action 2: Presentation of progress reports based on change initiatives.
Nov. 24, 2016	This was a follow-up meeting in which each organisation's representatives were required to share their experiences and lessons learnt during the assessment of the identified	Action 2 (cont'd): Presentation of progress reports based

Date	Meeting Purpose	NALP aligned action
	knowledge resources. LS members were invited to evaluate and suggest solutions to problems experienced by their colleagues from their peer organisations. An agreement also had to be reached on the selection list of cases to be used for pilot testing.	on the change initiatives.
		Action 3: Receiving feedback on change initiatives from LS members and superiors.
Dec. 20, 2016	To enhance the development of interventions to make sure (observe and evaluate) that the listed or selected cases to be used for the pilot are administered in terms of the newly agreed procedures which incorporate input from the traffic chief and senior prosecutor.	Action 4: Giving feedback to superiors – sharing problems, concerns and development of intervention mechanism.
Jan. 20, 2017	Meet to share organisational action and present results on the listed cases to be used in the pilot to the superiors and take note of (plan) further improvement initiatives from the respective organisational superiors.	Action 5: Taking action at the individual workplace in the light of suggested change initiatives.
Feb. 28, 2017	Presentation of the sample case files to the traffic chief and senior prosecutor for matching against (evaluate) the proposed improvements that were an outcome of the LS. Possible improvements, if necessary, will be noted (observe) and enacted by the interorganisational action learning group and implemented within their respective organisations.	Action 6: Preparing court documents under supervision (oversight structure) and submitting documents to the court.
May 2, 2017	Evaluate court documentation and ensure that all required documents are in order, and the court dates confirmed (action).	Action 6 (cont'd): Preparing court documents under supervision (oversight structure) and submitting documents to the court.
May 24 & 26, 2017	For all interorganisational learning set members to attend court proceedings (action) for cases issued in terms of the CPA (c. 341 and c.56) respectively. The attendance aimed to observe and reflect (evaluate) on any issues	Action 7: Attending court and determination of future action based on the court decision

Date	Meeting Purpose	NALP aligned action
	or recommendations that may result from the court proceedings.	
May 29, 2017	Analysed and interpreted the data and agreed to continue engaging on further approaches to improve the quality of documents (plan).	Action 7 (cont'd): Attending court and determination of future action based on the court decision

Action 1: Assessment of regulatory and operational knowledge-based instruments and exchanging feedback (Theme 1, RQ1.1 to RQ 1.3). In addition to introducing the learning set principles, the learning set (from hereon, LS) also agreed on the research problem. During the first meeting, every learning set participant was asked to identify the prevailing laws and regulations that they use to administer traffic offences in their respective organisations. Participants agreed that they would undertake this action within their own organisations after the meeting. During this process, the laws and regulations would also be scrutinised to identify all the traffic offences and other relevant provisions to which they would refer. The participants would gather and collate their organisation's internal regulations and procedures for traffic offence administration. It was agreed that the participants be mindful of the research problem so that only the relevant portions of the statutory and administrative prescripts were considered.

Action 2: Presenting progress reports based on change initiatives (Theme 2, RQ2.1 to RQ 2.4). In the second action, each individual participant was required to explain the method they used to identify instruments and practices referred to in action 1 at a meeting (meeting 2) held 14 days after the first action. Because it was evident that there was insufficient preparation for the meeting, this meeting was adjourned and followed up by meeting no. 3 when the LS presented the various instruments identified in action 1. After the presentations, the LS developed a summary of the instruments and tools used in the three organisations for the administration of traffic offences. Each participant also shared the experiences they had during their internal organisational assessment of the instruments. They also tabled the lessons they learnt during the period and came up with possible solutions to difficulties that arose during the first action as they interacted with their colleagues from the other

organisations. We also determined a selection of infringements (traffic offences) for pilot testing.

Action 3: Receiving feedback on change initiatives from LS members and superiors- Updating internal organisational practices and testing them (Theme 3, RQ3.1). The third action was undertaken by each individual organisation's representative. After receiving feedback on the proposed internal change initiatives from the LS (in action 2), they were asked to update their internal operating practices and test them for applicability after the adjustment. The process took one month, after which the organisations presented their feedback during the fourth LS, which considered the effects of the applied changes.

Action 4: Giving feedback to superiors (sharing problems, concerns and development of mechanism) (Theme 3, RQ3.2 to RQ3.3). In the fourth action, the LS met (meeting 4) and developed an interorganisational intervention mechanism for improvement of the administration of traffic offence finalisation. The role of this developed mechanism was to oversee the actions taken by each organisational representative to improve their internal workplace-based practices and procedures against the improvements agreed by the LS in action 3. This mechanism was in the form of an interorganisational oversight structure comprising the three organisational superiors. Action was taken by each participating organisation to harmonise and systematically actualise processes to improve successful finalisation of the listed traffic offences prior to testing the impact of the proposed intervention in the courts. The issuing authority's representatives tabled an initial list of cases that were selected to be used for pilot testing the proposed and agreed upon improvements.

On the suggestion of the LS, I presented the proposed change to the traffic chief and the senior prosecutor in a separate meeting organised for this purpose. The traffic chief and senior prosecutor later gave me positive verbal feedback and in principle approval of the proposed initiative. In summary, the initiative included proposals for improvements changes within participating organisations as well as an interorganisational oversight mechanism to govern the implementation of the changes. The traffic chief and the senior prosecutor also recommended some changes for improvement, for example, the inclusion of operator certificate for traffic officers.

In meeting 5, I presented the feedback of my meeting with the traffic chief and the senior prosecutor to the LS. The LS members then came up with an improved intervention mechanism that was informed by the feedback from the two authority heads. The improvement was in the form of the LS agreeing that their respective superiors would report any form of non-compliance by any LS member during the meetings in which they would be present. At the same meeting, the LS also agreed on cases that would be used in the pilot to test the proposed improvement. These selected cases to be used for piloting were subsequently submitted by one of the issuing authority's representatives for handover to the two authority heads for their consideration and provisional approval.

Action 5: Taking action at workplaces in the light of suggested change initiatives (Theme 3, RQ3.4). The fifth action involved each organisation separately implementing and testing the agreed interorganisational improvements mechanism, as it applied to their respective organisations. The LS members also identified, designed and implemented other organisational improvements that would be necessary for the implementation of the intervention. To plan the execution of this step, the group met eight weeks after completion of the fourth action (meeting 6). During this meeting, the participants also assessed their experiences in finalisation of cases as a result of the implementation of the internal organisational changes made during action 4.

Action 6: Preparing court documents under supervision (oversight structure) and submitting documents to court (Theme 3, RQ3.4). In the sixth action, the LS presented the proposed mechanism for improvement of the administration of traffic offences, as modified on the basis of their experience of implementation in the individual organisations, to the traffic chief and senior prosecutor (meeting 7). In this action, the traffic chief and senior prosecutor also examined whether the changes they had proposed have been taken into consideration and gave final approval to test the new interorganisational process. They also approved the court roll that listed the test cases.

Action 7: Attending court and determination of future action based on the court's decision (Theme 3, RQ3.4). All LS members attended the court hearings on the 24th and 26th May 2017. The magistrate's decisions were noted, and the decisions

brought back to the issuing authority for further attention. The LS met for the ninth time on the 29th May 2017 to reflect on the actions and determine further action. It was agreed that a proposal must be made to institutionalise the tested interorganisational mechanism for ensuring that court documents meet the required standard for successful prosecution.

4.7.3 Basis of learning set programme in KM theory

In order to maintain consistency and the scholarly focus of the research, I emphasised linking theory to practice through careful mapping of the proposed LS actions to the theory discussed in various relevant sections of Chapter 3. Table 4.4 shows the links that were established.

4.7.4 Questionnaire

I also developed a questionnaire that was informed by literature as well as focussed on addressing the research questions. The questionnaire aimed to capture additional data that LS members may not be able to express or may omit during the meetings. It was aligned with the themes and research questions. The questionnaire is shown in Appendix F.

Table 4.4: LS actions mapped to theory

Action	KM and IKM concepts	References
<i>Action 1: Assessment of regulatory and operational knowledge-based instruments and exchanging feedback (Theme 1, RQ1.1-1.3).</i>	Management of explicit and tacit knowledge (act): Action 1 was designed to elicit the explicit internal and external knowledge base necessary for the administration of traffic offences in South Africa, as well as to initiate the process of developing the culture of trust necessary for successful knowledge sharing. During this action, LS members made their tacit knowledge about the administration of traffic offences explicit by explaining their roles in the process of administering traffic offences to other members. LS members also reviewed the instruments they used in order to perform their duties in their respective organisations. Action 1 is aligned to the literature discussed in Sections 3.3.2.	Nonaka, 1994; Sanchez, 2004
<i>Action 2: Presenting progress reports based on change initiatives (Theme 1, RQ1.1-1.3).</i>	Comprehension of the knowledge concept (observe and evaluate): Action 2 was designed to evaluate the level of knowledge as a capability and knowledge management in the respective organisations. LS members demonstrated their understanding of the strategic advantage of know-how and intellectual capital in their own practices, as well as identify the key elements impacting the ability to effectively administer traffic offences with accuracy in terms of the existing tacit knowledge. The theoretical basis for Action 2 is discussed in Section 3.2.	Eptimehin and Ekundayo, 2011; Frost, 2011; Maglitta, 1996; Vince, 1997
<i>Action 3: Receiving feedback on change initiatives from LS members and superiors- Updating internal organisational practices and testing them (Theme 2, RQ2.1-2.4).</i>	Interorganisational exchange of explicit and tacit knowledge and Management support (evaluate): Building on the outcome of Actions 1 and 2, Action 3 was intended to evaluate the level of interorganisational exchange of knowledge and management support in order to enable KM to be efficiently conducted and utilised across the tripartite organisations. LS members acted on the KM aspects presented by each member from their respective organisations and gave feedback on improving the internal practices of each other organisation for further implementation and testing of change initiatives. Additionally, the action aimed to encourage and evaluate management involvement and support of interorganisational collaboration with formal procedures and guidelines. Management support has been cited as a key contributor to effective KM. Action 3 is aligned with the literature discussed in Sections 3.4.1, 3.6 and 3.8.3.	Alavi and Tiwana, 2002; Cabrera <i>et al.</i> , 2006; Cao <i>et al.</i> , 2010; Malhotra <i>et al.</i> , 2005, 2007; Lancini, 2015

continued ...

Table 4.4 continued

Action	KM and IKM concepts	References
<i>Action 4:</i> Giving feedback to superiors (sharing problems and concerns, and development of mechanism) (Theme 2, RQ2.1-2.4).	Knowledge integration (<i>evaluate, observe and act</i>): Action 4 was planned to assess the effectiveness of the previous actions and after that, enhance the development of a mechanism to ably integrate specialised knowledge of the involved organisations. During this action, the LS members focused their attention on the importance of making the specialised knowledge easily accessible through interorganisational collaboration that enables the transformation of relevant knowledge into an understandable format. The action also instituted an oversight structure in order to oversee the actions taken by each organisational representative to improve their internal workplace-based practices and procedures and bring in the sense of interorganisational dependency in administering traffic offences. Action 4 has its theoretical basis in literature covered in Sections 3.4, 3.6.2 and 3.8.1.	Demsetz, 1991; Dyer and Nobeoka, 2000; Grant and Baden-Fuller, 1995; Nonaka, 1994; Zack, 1999a
<i>Action 5:</i> Taking action at workplaces in the light of suggested change initiatives (Theme 3, RQ3.1-3.4).	IKM enablers (<i>evaluate and plan</i>): Action 5 aimed at evaluating how IKM enabling factors such as technology, structure and culture have encouraged the LS members to share their knowledge and experience with others at their workplaces to enable concurrent and systematic growth of organisational knowledge through actualised improvements. The LS members also took note for further action of improvement suggestions from their superiors. Table 3.2 and Section 3.7 provide a theoretical base for Action 5.	Allameh, Zare and Davoodi, 2011
<i>Action 6:</i> Preparing court documents under supervision (oversight structure) and submitting documents to court (Theme 3, RQ3.1-3.4).	The significance of oversight (<i>observe, evaluate and act</i>): Action 6 aimed at verifying that the new administrative processes, across the involved organisations, complied with the need to produce a court register with the potential for successful prosecution. The LS members were supported by the interorganisational oversight structure, which provided an additional IKM enabler that complemented the three enabling factors that prevailed during Action 5. The establishment of this oversight structure was decided during Action 4. Due to the positive response of the senior officials who performed the oversight role, I noted the potential value of adding oversight as an IKM enabling factor for the administration of traffic offences in the municipality. The court dates were confirmed. The theoretical basis for Action 6 is presented in Section 3.7.4.	Botha <i>et al.</i> , 2008; Huxham and Vangen, 2000; Laihonon, Jääskeläinen and Pekkola, 2014; Laihonon and Sillanpää, 2014

continued ...

Table 4.4 continued

<p>Action 7: Attending court and determination of future action based on the court's decision (Theme 3, RQ3.1-3.4).</p>	<p>Evaluation of implementation strategies (<i>act, observe, evaluate, plan</i>): Action 7 included attending court, observing the process and evaluating the effectiveness of the LS process as well as the initiatives that came out of the LS process to leverage KM in the successful administration of traffic offences. This action evaluated how the LS managed knowledge across boundaries, the role that organisational culture, management support and interpersonal relationship and trust played in the successful finalisation of traffic offences, especially by the courts. The theoretical basis for Action 6 is in Section 3.8.</p>	<p>Hansen <i>et al.</i>, 1999</p>
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4.8 The researcher in action

4.8.1 Action planning and sharing of findings

Action planning is a developed scheme to guide a researcher's daily routine. Without this framework, the researcher lacks the basis of why they are conducting the research. If one lacks an action plan, the proposed strategic plan of the researcher remains unachieved. A standard action plan consists of several elements such as a statement of what the researcher wants to achieve, the steps to be followed, a schedule, who undertakes each step, and a clear indication of what resources are required (Hilary, 2010). The action plan entailed knowledge sharing so that the benefits of the real-world enhancements and professional advancement could be realised. The participants were encouraged not to lock their knowledge to themselves but rather to share what they know with the others so that they can be comprehended, valued, and used by the other participants in the action learning set.

According to Hilary (2010), difficulties in sharing information or data between participants or involved organisations may be as a result of legal barriers or prohibitions by the involved. Our research setting did not present any legal barriers or prohibitions. During interorganisational researches, some organisations may prefer withholding crucial information from the others (Hilary, 2010), which would be inappropriate in our context due to the administrative dependencies that manifest the administration of traffic offences. In settings such as ours, Hilary (2010) advocates that researchers should be willing to share their result findings and other research materials used. Sharing research findings is important to ensure that they are based on reliable evidence and can be viewed as a form of knowledge-sharing initiative, which is known to be an effective way to enhance any research.

The findings of the study were shared within the affected structures in the participating organisations by sharing a document that described the actions taken by each organisation as a result of the change initiative (Appendix G). In addition, the NDoT, via the RTIA and the RTMC hold shareholder's meetings to address matters concerning the enforcement of traffic laws in the country. To make use of this platform, at the conclusion of the project and finalisation of the report, I will visit the NDoT to present my project findings. The presentation is intended to take place at a mutually convenient time after my research has been examined. After

permission had been received from their respective organisations, the members of the action learning set will be invited to accompany me to these presentations at the NDoT.

4.8.2 Managing external risks

Managing risks involves developing cost-effective measures that counter perceived risks and deciding how to deal with each risk. Berg (2010) identified various options, including avoiding the risk, accepting the risk, sharing the risk, and mitigating the risk (Berg, 2010). In this study, one possible risk was the possibility of politicians interfering in the project, especially because some of the State instruments were involved. The involvement of the traffic chief and the senior prosecutor was useful in mitigating the risk as the traffic chief was able to present this project at a Municipality's strategy session. Gaining NDPP approval as part of the ethical approval proposal also helped mitigate the risk of political interference.

4.8.3 Opportunities and responsibilities as an insider-researcher

As an insider-researcher in the same organisation where the researcher practices, one has the experience and needed expertise. The knowledge of the working environment gave me an advantage and was reasonably comfortable that the project yields a rigorous study. Being an insider-researcher helped me to get acknowledged by the participants as an outstanding leader throughout the research. To certain levels as a researcher, one can pick what traditionally has been accepted as a good research practice in one's professional field of research (Johnsen and Normann, 2004). As an insider-researcher, I took several steps to avoid biases in this study. One such step was ensuring that I consider the feedback and opinions of the participants. Also, I considered the evaluation of the data at the initial stages of the project and used the triangulation approach during data collection. I have paid attention to efficiency in communication and ensured that the necessities of the participants are taken into consideration as I put all the necessary efforts in effecting communication from the participants.

4.8.4 Data sources

Data were gathered primarily during the collaborative learning stage of my research. I also kept records of my action plans and the results of actions that I took as well as reflections on all aspects of the research. The questionnaire mentioned in Section

4.7.4 was also an additional source of primary data. Secondary data were collected in the form of a literature review from various accredited sources such as conference proceedings, journal articles and published books. All secondary data sources have been referenced.

This section discusses the process of collecting primary data from the LS method.

4.8.4.1 Documentation of learning set meetings

Guided by Levin and Rock (2003), the interorganisational LS sessions were minuted (see Appendix H for a sample) and the minutes reviewed periodically by the participants so that they could check the data and make any necessary corrections or amendments. LS deliberations, action plans and results were recorded in these minutes. I also consulted documents created by members of the learning set as they took action in their own organisations, and some of these documents were stored and shared on Dropbox (sample in Appendix I).

4.8.4.2 Research journal

I kept a research journal which contained observations of learning set sessions (Appendix J) as well as a learning journal that contained my observations and reflections on the whole research process. The research journal served as an aid for consideration where I gathered and explored ideas as well as using it as an evidence store that I accessed for retrospective analysis.

4.8.4.3 Use of information technology to record and manage data

Managing the information systems involved in a study is crucial for the efficiency of data generation (Irma, 2001). Throughout the data collection stages, I used an iPad to record data which were directly or indirectly connected to the study. Observations, analyses, field notes and comments constitute the bulk of this data. I established a “Dropbox” where all LS members (including myself) could add data in an orderly manner to facilitate ease of knowledge sharing. Through this approach, I managed not only to keep a detailed research record but also to share relevant material with the LS.

4.8.4.4 Confidentiality and ethical considerations

There are three main moments in a research study when ethics considerations must be upheld, namely, when recruiting participants, during interactions with the participants and at the release of the findings. (Welman, Kruger, and Mitchell, 2005). Welman *et al.* (2005) highlight that, during each of these stages, it is imperative that the researcher's conduct remains within the ethical policy framework that human research requires. This study involved adherence to ethical matters involving several institutions.

The University of Liverpool Online DBA Research Ethics Committee reviewed the full ethics protocol for this study. A copy of the Committee's approval appears in Appendix K. The required approval from the participating organisations for the project was obtained before the commencement of the study (Appendix A).

During the LS stage of my research, other vital and confidential information regarding the involved organisations was shared. It was necessary to ensure that this information did not leak to those who were not participants of the project. It was also important to gather as much explicit knowledge for this study as possible. However, there may have been some hidden criticisms of the parties involved in the project, although these were not apparent. The participants' identities in this study have been duly acknowledged by name per their request. Furthermore, each participant was issued with a participant information sheet (Appendix B) and a consent form (Appendix C) to obtain their informed consent.

All the written records are stored in a computer with a strong password, and hard copies are locked in a secure cabinet within my organisation. I am the only one who has access to both these written records and hard copies.

4.9 Data analysis

Data collection for learning set activities began a week after the organisational and individual ethical forms agreeing to participate in the study had been received from each participant. I started by organising a formal meeting with the traffic chief as it was easier since my company was contracted to the Midvaal Local Municipality whose traffic law enforcement section is headed by the traffic chief. Afterwards, a meeting was arranged with both the local senior prosecutor and the traffic chief. My aim in meeting with the two heads was to re-familiarise them with the research

problem and the plans that I aimed to follow during the course of the study, as well as to depict the possible outcomes of my research. This meeting was guided by the protocol, which appears in Appendix E.

The LS programme of nine meetings based on action taken between meetings provided an opportunity to analyse data continuously (Merriam, 1998). In this regard, I was able to interpret data and enact suggested improvements throughout the LS process.

4.9.1 Data analysis during action learning

During the LS stage of my research, I gathered data from all the sources listed above. I read my field notes repeatedly to ensure accurate understanding, interpretation and observation. I carefully analysed the data and shared my observations with the participants. I took the time to engage in discussions with every participant to review their responses, where necessary. During interpretation, I tried to put the new information into perspective by comparing my notes to the operations and actions normally taken by the administrators.

From the first meeting, ideas relating to themes started to emerge based on the structure of the meeting and the instruments that each representative brought to it. The LS analysed the instruments based on weaknesses that each member had identified, as well as explanations of them.

4.9.2 Data analysis for action research

Tere (2006) identifies three general types of qualitative data analysis: thematic, content, and discourse analysis. I considered thematic analysis the most appropriate for this study since it provided a systematic approach to data analysis. By using thematic analysis, I had an opportunity to understand the potential of each issue in broad terms (Marks and Yardley 2004). I followed Miles and Huberman's (1994) model.

Miles and Huberman's (1994) model for the thematic analysis process consist of three linked stages, namely data reduction, data display and data conclusion-drawing/verifying. This model is illustrated in Figure 4.3.

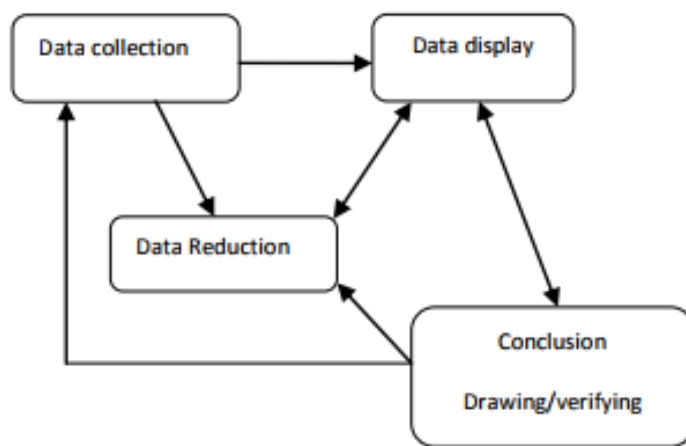


Figure 4.3: Interactive data analysis model is taken from Miles and Huberman (1994, p.12)

After reading my data carefully, the first stage of data analysis involved the reduction of the data gathered during the action learning process. Data reduction refers to the process of choosing, focussing, simplifying, building and transforming data (Miles and Huberman, 1994). The data were already structured in line with the NALP steps organised around the research questions which had been pre-grouped into themes using the first stage coding structure shown in Appendix L. After displaying the data in this form, the next stage of the data analysis was to identify data related to actions taken by each learning set member's organisation following the suggested improvements. Presenting different actions taken aimed to provide evidence and to support and validate interpretations (Miles and Huberman, 1994).

Stage three was the drawing and verification of conclusions. In this stage, I read and reflected again upon my observations and reflections on the learning set's actions. This process involved arranging and organising the data in line with relevant KM concepts, as shown in Table 4.4 and interpreting them meaningfully. These findings are outlined in Section 5.2. I was guided by the literature to examine the explicit and tacit knowledge required by administrators for the successful finalisation of traffic offences and how this knowledge could be integrated among representatives of different organisations involved in the administration of traffic offences in Midvaal Local Municipality in addition to the IKM processes and enablers outlined in Figure 3.2. My reflections were shared with the LS. The final data structure is summarised

in Appendix M. Sections 5.4 and 5.5 document the findings that emerged from the following analyses:

4.9.2.1 Knowledge and knowledge integration in IKM

I examined how data, information and knowledge were related to one another in the administration of traffic offences. I looked at how the explicit knowledge contained in the various statutes can be integrated with the participants' tacit knowledge. I also referred to how the value of more collaborative interorganisational relationships to manage knowledge is advocated in the literature. Specifically, I investigated how, through an interorganisational team structure, the diverse knowledge and expertise of individuals in complementary organisations can be brought together, integrated, and applied to the process being administered. These included the different organisational and individual characteristics as well as the related experiences in the field of traffic offence administration determined the nature of the network systems that would be appropriate for the study. Factors such as interorganisational learning, management support and interpersonal relationships at the organisational level, and intuition, innovativeness and trust at the individual level were noteworthy.

4.9.2.2 IKM processes

I analysed knowledge acquisition, knowledge conversion, knowledge application, and knowledge protection during the LS interactions and observed how integrative and interactive processes would form the basis of development and direct application or integration of standard operating procedures in participants' own day-to-day workplaces. The respective findings are located under Theme 3 in Chapter 5.

4.9.2.3 Enabling factors

I examined the role of enabling factors. They are essential because they have the potential to encourage the role players to share their knowledge and experience with others while enabling concurrent and systematic growth of organisational knowledge. In particular, I looked at the relationship between the enabling factors, especially the *oversight* factor, as it was envisaged to be one of the key enabling factors. I also examined the impact of organisational culture, management support, and interpersonal relationships and trust on the effectiveness of the proposed interorganisational initiative developed by the LS.

At this stage, I focussed on building coherent findings and drawing structures of the results from the data that is displayed (Miles and Huberman, 1994). Examples of data from different sources that informed my observations, reflection and conclusion, are provided in Appendices L and M.

4.10 Conclusion

The interorganisational learning group setting involved representatives from the issuing authority, private company, and prosecuting authority who were carefully selected by their superiors based on their work experience and organisational portfolios as outlined in Section 4.6.2. The three organisations and their representatives voluntarily consented to participate in the learning set since they have direct service delivery relationships with one another. The action learning process involved cycles of action and inquiry, centred around an interorganisational learning set facilitated by myself as the insider action researcher and other learning set members as facilitators of their own reflection and emergent generation of professional knowledge of the administration of traffic offences in South Africa. An emergent contribution to IKM theory from my action research is the addition of *oversight* as an enabler, in addition to the common KM enablers of culture, technology and infrastructure. My action research wrapped around the learning set activities in three stages: preparation, learning set and analysis and writing up the thesis. The findings from my research are presented the next chapter.

CHAPTER 5. FINDINGS AND DISCUSSION

5.1 Introduction

Kurt Lewin (in Adelman, 1993, p. 8) reminds us, “No action without research; no research without action”. Simply put, an action research study should lead to action instituted by the action researcher. In my research, several findings make it clear that the outcomes of the research led me as the action researcher, as well as the participating organisations, to take action.

In the first part of this chapter (Section 5.2), I use the themes and associated research questions to present the findings, followed by a section on the scenario testing of the designed intervention during court proceedings. The second part of the chapter (Sections 5.3 to 5.4) discusses the application of knowledge management theory to the practical problem, as well as the implementation of the planned change through the action research process.

5.2 Thematic presentation of research questions and findings

As described in Section 4.7, I used Coughlan *et al.*'s (2002) NALP to structure the activities of an interorganisational action learning set to address the research problem. These activities are mapped to the themes that guided this research in Table 4.2. In this section, I use the themes and associated research questions to organise the findings.

5.2.1 *The knowledge base*

Theme 1 and the associated research question (RQ 1), shown below, aimed at establishing the knowledge-based resources available to guide the administration of traffic offences. Both explicit knowledge and tacit knowledge, in several different forms, were identified. They are discussed below.

Theme 1: Identification and classification of knowledge-based resources in the administration of traffic offences in the interorganisational KM context

RQ 1. What is the knowledge base for the administration of traffic offences in the Midvaal local municipality?

5.2.1.1 Explicit knowledge

Identification of relevant explicit knowledge was guided by empirical research questions 1.1 (Which statutes govern the administration of the traffic law offences?) and 1.2 (What technical and administrative knowledge exists for the administration of traffic offences?).

Statutes. Although some theoreticians regard explicit knowledge as being less important than tacit knowledge (Brown and Duguid, 1991), the explicit knowledge contained in the statutes is the foundation of what constitutes a traffic law offence, the classification of offences, rights of offenders, and related regulations.

In addition to the TCSP *Guidelines* (described in Section 2.5), the legislative documents that were identified as relevant are:

Constitution of the Republic of South Africa (1996)

National Road Traffic Act (1996)

Road Traffic Management Corporation Act (1999)

Criminal Procedure Act (1977)

As the leader of the private sector organisation, I recalled that the *Policy for Private Sector Involvement in Providing Administrative and Logistical Support to Issuing Authorities* was referred to in correspondence between my organisation and the issuing authority. This document was also accepted as an additional piece of explicit knowledge available for the administration of traffic offences.

It was apparent from the set of documents presented that the TCSP *Guidelines* are interorganisational-oriented documents that are generally viewed as superior to the statutes. This is because the TCSP *Guidelines* contain formalised routines that are designed to be easier to implement, with the possibility for management to actively embed interorganisational lessons directly into customised internal procedures and routines.

Organisation-specific knowledge. Administrative and technical knowledge is the type of organisational knowledge that is formalised and codified and sometimes referred to as know-what (Brown and Duguid, 1998). Several authors refer to this type of knowledge as embedded knowledge because it is locked in rules, processes,

manuals, organisational culture, codes of conduct, routines, artefacts, or structures (Gamble and Blackwell, 2001; Horvath; 2000).

The LS acknowledged that, although each organisation has its own standard operating procedures and guidelines, the legislative mandate for the administration of traffic offences is derived from the above-mentioned four statutes. Additional explicit knowledge about operating procedures, standards and other instruments to guide administration of traffic offences was found in internal organisational databases, memos, notes and other documents. Although they were considered significant but not material, the private company tabled the technical manuals and calibration certificates related to all speed cameras that were being used. The LS relied strongly on the TCSP *Guidelines* since they contain formalised routines that are designed to be easier to implement with the possibility for management to actively embed interorganisational lessons directly into customised internal procedures and routines.

The learning set discussions demonstrated that traffic offence administrators tended to focus on internal standard operating procedures and guidelines without making an effort to connect the relationship between the statutes, regulations and operational guidelines. Although it was not part of the study, the action learning process provided an opportunity for individual LS members to critically assess how their functions relate to the constitutional mandate which is to ensure that the right to safety on the roads is guaranteed through effective efforts by all administrative role players.

5.2.1.2 Tacit knowledge

Tacit knowledge refers to intuitive, hard to define knowledge that is largely experience-based; it is sometimes referred to as know-how (Brown and Duguid, 1998). Identification and classification of tacit knowledge were guided by research question 1.3 (Who owns the experiential knowledge for the administration of traffic offences?). I found that at the organisational level, organisational learning, management support and interpersonal relationships are important factors, while at the individual level, intuition, innovativeness and trust are important factors.

The LS members' combined educational background appeared to provide an advantage because they could effectively interpret the relevant statutes and guidelines, thereby enriching the quality of their tacit knowledge to test their explicit

knowledge through application. This was evidenced by the prosecution authority's representative who commented that

It feels great to be part of a group that is willing to contribute to each other's knowledge and experience to the group (PRO1).

Interpersonal relationships and trust. A scenario that showed the importance of interpersonal trust occurred when sample test cases were being selected. During discussions about the selection of cases for pilot testing, the prosecution representatives indicated that they had only a minor role to play in the identification of cases because of the nature of their roles as prosecutors. They argued that the lead organisation in the selection of cases was the issuing authority, supported by the private company. They further argued that the private company is also responsible for ensuring that the court rolls would be appropriately prepared and collated. In addition, the prosecutors advised that the selected cases would have to meet the criteria for court enrolment no earlier than May 2017 due to the current workload that the courts were experiencing, especially on non-traffic-related criminal matters. At this stage, the issuing authority representatives enquired why the traffic matters are presided over by the magistrate, who ordinarily presides over criminal cases. One of the prosecuting authority's representatives explained that the judicial institution was under-staffed and magistrates, as well as prosecutors, were required to multi-task instead of just focussing on one aspect of the law.

After agreeing to the prosecuting representative's suggestions, it was recommended and accepted that arising from intuition from the issuing authority's representative, one of the prosecuting authority's representatives must engage with the magistrates about the acceptable number of cases during May 2017. The group session adjourned for 30 minutes to allow the issuing authority representatives time to identify possible cases for court enrolment. These cases were selected from real traffic offence cases, and the only criterion used was that they were eligible for enrolment no earlier than May 2017.

After the adjournment, a list of fifty (50) cases was tabled by the issuing authority's representatives. After being scrutinised, the cases were categorised by sections of the CPA (56 or 341). It was resolved that the sample list must be submitted by the issuing authority's representatives to the traffic chief for concurrence.

The unprecedented constructive engagements demonstrated improvement in interpersonal trust.

Process and buy-in. During the fourth LS meeting, the prosecuting authority's representative expressed further encouragement about the process. The representative stated that some of his colleagues, including one of the magistrates that he engaged with at the recommendation of the LS during the third meeting, had commended the innovative way in which the LS is approaching the research problem since, when concluded, the results would provide a useful example to guide the country in terms of how KM can be used to encourage responsible road usage.

However, the issuing authority's representatives stated that, while they appreciate the possible advantages of the research, they do not understand why traffic officers are required to also administer traffic offence documentation. They argued that the traffic officer's role is that of being on the roads citing offenders and submitting citations to the back-office for administration. I indicated that their point of view is valid, however, that certain aspects of knowledge management processes, for example, sharing knowledge of what each of the stakeholders is doing to pursue the intended objectives of traffic law enforcement, can add to the possibility of successful prosecutions in the courts. It was also noted that traffic officers are, in any case, required to be present in courts to lead evidence and as state witnesses.

Organisational learning was found to be one of the variables that can capacitate each role player to improve their efforts.

It was also found that the LS needed to trust each other and collectively follow the research process in order to ensure that the findings are accurate and reliable. A proposal for informal out-of-LS engagements was accepted as this would enhance personal relationships.

Organisational management support. Each member confirmed that their immediate supervisors were being kept abreast of the LS process and that no one has experienced challenges from his or her supervisors. In fact, their management had already initiated change processes in line with the input from each organisation's representative.

With regards to the questionnaires, the challenges were found to exist, and improvements were suggested.

The following challenges were common across the questionnaires:

- Insufficient interorganisational cohesion results in each organisation just doing enough administrative work to meet their individual organisation's objectives without considering consequential effects on the entire road traffic infringement service delivery value chain.
- Case-flow management meetings (scheduled meetings between the issuing and prosecuting authorities to discuss the planning and coordination of the time and events necessary to move a case from the point of initiation (filing, date of contest, or arrest) through disposition) are ineffective because the implications of unsuccessful prosecution of traffic offences are not discussed, undermining all traffic law enforcement initiatives.

The following improvements were identified and accepted to guide the selection of pilot cases:

- Each case file to have the required supporting documentation before inclusion on the court roll to ensure that the work required by the clerk of the court and the prosecutors to check the quality of the evidence pack is minimised.
- Each case file to be scrutinised by the interorganisational oversight structure for full compliance and prosecutability.

5.2.1.3 The interplay between tacit and explicit knowledge

My analysis revealed that organisations should maintain an appropriate balance between explicit and tacit knowledge. This is evidenced by the court session scenario that is described later in this chapter, where the interplay between the two knowledge typologies was central to the outcome. Notably, the LS process affirmed Nonaka and Takeuchi's (1995) contention that tacit and explicit forms of knowledge are inextricably linked and that effective administration and successful finalisation of traffic offences can be improved through social interaction between tacit knowledge and explicit knowledge. It became apparent that regardless of which of the two is more valuable, the two are mutually dependent and reinforce qualities of knowledge. The inseparable linkage of tacit and explicit knowledge suggests that, in most cases, it is individuals with a requisite level of shared knowledge that can truly exchange knowledge. In other words, if tacit knowledge is necessary to the understanding of

explicit knowledge, then in order for the issuing authority's and prosecution authority's officials to understand the private company's employees' knowledge, there would have to be some overlap in their fundamental knowledge bases (Ivari and Linger 1999; Tuomi 1999).

The LS actions and my observations on them based on the outcome of the LS process revealed that, from an organisational and managerial perspective, the greatest challenge to the effective administration of traffic offences was not ensuring that officers and administrators have access to statutes and regulations that are necessary for the execution of their responsibilities, but lack of coordination, of understanding how their tacit knowledge can be effectively used to interpret the explicit knowledge, as well as interorganisational oversight.

Because tacit knowledge is often context-dependent and personal, when this matter was discussed, reference was first made to the years of experience that each LS member had as an administrator of traffic offences. I indicated that, although the members were inclined to look at years of experience in the field, it would be near impossible to convey the groups' collective understanding gathered from years of experience and practice.

Upon reflection, I found PRO1's comment mentioned above to be reaffirming and a confidence builder among LS members. Once again, the inextricable link between the two knowledge typologies was evident. Interpersonal trust, management support and organisational learning were identified as key to support interlinkages between tacit and explicit knowledge so that organisational knowledge is strengthened.

5.2.2 Interorganisational knowledge sharing

Theme 2 and the associated research question (RQ 2), shown below, aimed at establishing how the existing knowledge is being accessed and integrated. The creation of a knowledge sharing network as well as knowledge integration emerged as vital to facilitate the process of collaboration. Important elements of the knowledge sharing networks for traffic offence finalisation in the Midvaal local municipality were: interdependency, institutionalised platforms and psychological features (trust and power-play), while the sharing culture was important in respect of knowledge integration. They are discussed below.

Theme 2: Issues in knowledge sharing across the involved organisations.

RQ 2. How is the knowledge for the administration of traffic offences in the Midvaal local municipality accessed and integrated?

5.2.2.1 Knowledge sharing network

Issues encountered around access to knowledge and how it is being shared were discovered through the answers to empirical research question 2.1 (How accessible is the knowledge needed for the administration of traffic offences?), 2.2 (How is the knowledge being shared between traffic offence administration organisations?) and 2.4 (What platforms are used to share traffic offence administration knowledge in these institutions?).

The LS had difficulty in understanding what the concept of “knowledge sharers” meant. After some discussion, the data to answer this question were collected, not just from the LS, but also from the traffic chief, the senior prosecutor and the court rolls.

Interdependency. Data analysis revealed that the knowledge in the administration of traffic offences is accessible from internal organisational standard operating procedures and guidelines. The private company also provides training for issuing authority administrators and traffic officers periodically. The issuing authority also provides ongoing refresher courses and handbooks. The prosecuting authority relies mostly on the TCSP *Guidelines*, as well as the relevant provisions of the CPA.

A further revelation was that knowledge sharing is confined within the internal structures of each organisation, and especially happens at the middle to junior levels of administrators. Also, comments from the LS members revealed that the prosecuting authority never sends its officials to external traffic law enforcement workshops. This was because it was reported by the prosecuting authority’s representatives that they are not usually invited to the workshops, despite the workshops having relevant content. Thus, their only source of information was the issuing authority.

The observation that external workshops seem to be reserved for people in the top echelons of the organisation is a phenomenon that aligns with Liebowitz and Chen’s

(2003) view that knowledge sharing in the public sector is made difficult by officials who tend to view knowledge as closely related to power and promotion prospects.

The data also revealed that there were no platforms at which knowledge related to the administration of traffic offences was explicitly being shared, other than the regular operational and management meetings between the issuing authority and the private company. According to Dyer and Nobeoka (2000), interorganisational collaborations are more effective when participating organisations acknowledge their interdependencies. These collaborations are possible when there are institutionalised platforms for knowledge sharing (Mkhize, 2015).

Institutionalised platforms. In section 3.8.3, I noted that KM activities are reliant on communications networks and systems (Van de Ven, 2005). It was found that in order to share knowledge, there was a need to implement user-friendly applications and platforms that enable the sharing of ideas and easy communication. The creation of a Dropbox application improved collaboration and communication. The centralised monitoring of the application ensured that it is available at all times to everyone within the network.

In fact, during the fourth LS meeting, it was reported and confirmed that all group members had either posted documentation (instruments) to the LS Dropbox or had asked someone else with ease of access to post the documents on their behalf. Examples of instruments that members shared on Dropbox include the operating procedures, forms and paperwork required for collaborative work among the two main organisations involved in administrations of traffic offences, that is, the issuing authority and prosecuting authority. The Dropbox account was logged into during the meeting to verify statements by group members.

Psychological features (trust and power-play). It was found that even when administrators have equal ability to use common knowledge to share and access each other's domain-specific knowledge, power was still exercised. For example, a reason advanced by municipal employees for not tabling their operational documentation at the commencement of the LS meetings was that they do not have internet access as the municipality's policy is to restrict internet access due to historical abuse. In this regard, they felt disempowered by their superiors not having

access to operational tools. I was surprised to learn that even their emails can only be accessed from one computer, which is in one of the supervisors' offices.

It was also found that, where trust and collegiality prevailed, like the *ad-hoc* morning meetings that were held during tea/coffee breaks between the private company and issuing authority representatives, positive results started to emerge. Participants who attended these meetings had found it more comfortable to share daily experiences and new ideas that were used interorganisationally to improve workflow quality and document management processes. This demonstrated that the learning culture had manifested in interpersonal trust. As Malhotra *et al.* (2005) note, the creation of credible new knowledge depends on the frequency and the quality of the relationships among the collaborating organisations. According to (Foucault) 1980 and Hardy and Clegg (1996), an interpersonal understanding of knowledge at a boundary also specifies at a very concrete level the relationship between knowledge and power.

5.2.2.2 Knowledge integration

Issues around how knowledge was being integrated were discovered through answers to empirical research question 2.3 (Who are the knowledge sharers and how often do they share their knowledge?).

Through the various actions taken at each organisation, management provided an appropriate platform by implementing suitable processes, frameworks, and systems to enable knowledge sharing. The platform was extended because management wanted to foster a knowledge sharing culture to ensure that KM initiatives are fully applied and capitalised upon by the administrators involved in the processes.

A notable comment from the issuing authority

the service provider was appointed to provide operational knowledge as well as training on all aspects of traffic offence administration (IA1).

revealed that there was leaning towards suggesting that the private company is expected to lead in the knowledge sharing process.

It was found that, in order for the organisations involved in the administration of traffic infringements to make KM initiatives work in practice, the administrators within each organisation had to be willing to share their knowledge with others. Consistent

with Bukowitz and Williams (1999), Davenport and Prusak (2000) also posit that each participating organisations' management must understand culture both on an organisational and interorganisational level. Willingness to share knowledge and conditions for knowledge sharing among members of the organisation were found to be dependent on the organisation's culture, hence the interrelatedness of knowledge, knowledge sharing and organisational culture. The leadership from the participating organisations demonstrated their commitment to the process, hence the positive outcomes from the LS interactions.

By fostering the knowledge sharing culture, management allowed the administrators to access and utilise the specialised knowledge which is held within the involved organisations, without being restricted by hierarchical bureaucracies. The non-hierarchical nature of the LS structure was evidence for Grant and Baden-Fuller's (1995) suggestion that the efficient utilisation and integration of specialised knowledge in collaborating organisations are more important than hierarchical or internal governance. The ability of organisations to access, transfer and apply the specialised knowledge available to them to the production of successfully prosecuted evidence packs, affirmed that the LS had been able to translate specialised knowledge into a form that could be understood by all actors who need it.

It was concluded that, to achieve efficient knowledge integration, the IKM initiatives needed to place a strong emphasis on the tacit dimension, focussing on the people and processes involved, using IT in a supporting role as suggested by Frost (2010), and oversight in an enabling role. This implied that organisations had to consider optimising the utilisation of their human and intellectual resources. This benefitted the traffic law enforcement officers and administrators alike in ensuring that the PMS requirements are met.

5.2.3 Interorganisational KM to facilitate successful finalisation of traffic offences

Theme 3 and the associated research question (RQ 3) shown below aimed at establishing whether there can be an institutional framework that can improve successful finalisation of traffic offences. An interorganisational institutional framework, as well as enablers, were identified as critical. They are discussed below.

Theme 3: Interorganisational KM to facilitate successful finalisation of traffic offences

RQ 3. How can interorganisational KM improve the successful finalisation of the administration of traffic offences in the Midvaal local municipality?

5.2.3.1 Interorganisational institutional framework

The determination of an appropriate interorganisational institutional framework was guided by empirical research questions 3.1 (To what extent has the existing knowledge been standardised or pulled together?) and 3.2 (How is the knowledge on the administration of traffic offences being processed?), as well as the actions taken by each organisation.

The absence of an interorganisational institutional framework manifested in the incongruent operating procedures among the involved organisations. Issues that were identified as inadequate and required attention were on: (i) the standard operating procedures, (ii) inconsistent application of the law and (iii) lack of oversight on cases before being submitted to the court. Further, there was low satisfaction among prosecutors due primarily to (i) poor court documents and inefficient leading of evidence in court by traffic officers and (ii) unavailability of expert witnesses. The LS linked the origins of these inefficiencies to inadequate KM processes and oversight. The group agreed that these issues could be resolved through alignment of the interorganisational structure to the strategy of traffic law enforcement and balancing power across the differing but complementary roles of the participating organisations.

There was a view by the prosecuting authority's representatives that permission to conduct speed law enforcement by the camera is conditional on full compliance with the TCSP *Guidelines*. This view was taken seriously by LS members, who agreed that all organisational operating procedures would be aligned to the TCSP *Guidelines*. To complement this agreement, the LS decided on organisation level key performance indicators.

It was found that the agreed organisation level key performance indicators that resulted in individual organisational improvements were the result of each organisation's attention to (i) document technical compliance, (ii) categorising and quantifying delays, (iii) the status of infringements that were about to expire, (iv)

output per data capturer, (v) failed images and reasons for failure, as well as (vi) the prosecutability of the court documents.

Following the provision of a technological advancement training through which traffic officers are kept abreast of speed camera trends and recognise how offences can be successfully captured and documented in line with the NRTLEC, certain changes emerged.

After this change was introduced by the issuing authority, a prosecuting authority representative commented to an issuing authority representative:

It looks like you guys have pretty much resolved the image quality. I would have to say that I was pleasantly surprised when I saw the current traffic fines and didn't have to reduce the amounts due to complaints by offenders about the poor images on the fines. Well done! The system seems to be working. I am sure you have a happy bunch of traffic officers and camera technicians (PRO1).

We took your comments and inputs seriously, Mr Prosecutor...in fact, the private company had to come to the party this time around (IA2)

Yes, our developer is quite clued-up, and I am happy with the final product (PC3)

The discipline and dedication demonstrated during the action-taking and at meetings, as well as reporting requirements resulted in maintaining commitment and momentum of the project.

The data also revealed that although there is a conscious understanding that the involved organisations administer traffic offences within the public-private partnership model, there is no institutional framework that fosters the interorganisational collaborations.

Although the prosecuting authority representatives argued that the TCSP *Guidelines* were specifically developed to standardise KM in the administration of traffic offences, data revealed the existence of a traffic offence administration process that aligns with Gold *et al.*'s (2001) knowledge process architecture of acquisition,

conversion, application and protection (see Figure 3.2). Thus, the processes involved in the administration of traffic offences were found to be aligned to Gold *et al.*'s (2001) theory as adapted below

- *acquisition* of data: capturing images of vehicles driving beyond the legal speed limit, as well as records of issued spot fines using data provided by the offender or obtained from a stationary unmanned vehicle;
- *conversion* of data into information: exporting the data to the Electronic National Administration Traffic Information System (eNATIS) and processing and interpreting it into useful information;
- *application* of information: production of personalised fines and notices for adjudication; and
- *protection* of information: protection of an offence/contraventions register for onward transmission to offenders and storage in terms of the legislation.

Despite the above processes, each organisation involved in the administration of traffic offences tended to develop its own operating procedures which are not always fully aligned with the TCSP *Guidelines*. If each organisation followed the TCSP *Guidelines*, disparities would have been minimised, and successful finalisation of traffic offences could be optimised. With the integration (Grant and Baden-Fuller, 1995) that was discussed above and standardisation, the administration process would have become a systematised routine with well-defined tasks. Attention to detail thus depended on each organisation's internal operating procedures being appropriately aligned to the TCSP *Guidelines*.

Several actions were undertaken by each organisation and resulted in the operational improvements that were reported at the fifth meeting (20 January 2017). An extract from a report prepared by the LS of this meeting appears in Appendix G. The aggregated actions that were taken by each of three participating organisations during and as a result of the LS process are described below.

Actions by the issuing authority

The traffic chief and her senior management benchmarked their organisation against the standard operating practices for issuing authorities in order to identify current gaps, based on the draft *National Road Traffic Law Enforcement Code* (NRTLEC)

(Road Traffic Management Corporation, 2013). Training and process management were among the larger gaps identified. The Traffic Supervisor was tasked with ensuring that officers are provided with training focussing on those tasks that required attention. A continuous improvement approach was recommended to address a process management gap in the issuance of notices in terms of CPA c.56. One element of these changes was the introduction of measures to show ongoing improvements achieved. Actions were also taken to deal with other organisational gaps, for example, non-compliance with provisions of the NRTLEC and to ensure that new practices are expanded into wider use in the organisation. Successful interventions in the issuing authority, demonstrated by the results, are summarised below.

Criminal Procedure Act (1977, c. 56)

- A more accurate description of offences, due to insertion of charge codes instead of narrative descriptions.
- Significant improvement in the recording of personal particulars, for example, capturing of offender's driver's licences numbers in addition to personal identification numbers.
- Introduction of hand-held electronic traffic offence data capturing of section 56 offences through scanning the motor vehicle licence, the drivers' licence and charge description barcodes.

Criminal Procedure Act (1977, c. 341)

- The rejection rates of infringement data were significantly reduced as a result of further training in setting up speed cameras in order to capture accurate data.
- More accurate location coding as a result of a new geo-location capability within the speed cameras.

Additional improvements

- Involvement of all traffic officers in the redesign of the training modules required for improvements.

- Closer linking of performance with salary increment reviews.
- Quality service visibly advocated and promoted by the traffic chief.

Once these improvement initiatives were implemented, the issuing authority focussed more on ensuring that they achieve low rejection rates on all infringements raised.

Actions by the private company

The interorganisational LS influenced the private company to make interrelated changes to fundamental areas of its operational workplace-based practice. These involved IT systems redesign, business process review and improvement, and alignment of printing, posting and debt collection processes. The changes to fundamental areas of operational practice were aided by corresponding changes in leadership policy and strategic planning, information and analysis, organisation and communication, as well as the management of human capital. Further detail of each change is provided below.

- *IT system redesign.* Improvement of the data cleansing module to ensure that the search for an infringer's details is accurately aligned to the national database of vehicles and owners. New functionality was added to the system so that an email is now sent to an infringer at the same time that batched print notices are dispatched to the post office. We investigated and found that it was feasible to send an SMS to the infringer's cellular phone as well. The redesigned IT system was named MAVITS (Appendix N), an acronym for Mavambo Intelligent Transport Solutions, available at mavitsapp.co.za.
- *Process review and improvement.* Improved administrative processes and changes made to the organisational structure to improve the quality of verifications.
- *Alignment of printing, posting and debt collection:* Centralisation of printing and posting of infringements and the improvement of the infringement payment channels including the increment of the frequencies of roadblocks.

Actions by the prosecuting authority and traffic court

The prosecution's chief infused the interorganisational learning strategy into a pre-existing change initiative within the authority, and following the interorganisational LS meetings, the prosecution representatives engaged the magistrate of the local court to identify possible interventions for the successful prosecution of traffic offences. With an improved interpersonal relationship between the NDPP and the magistrate, it was agreed that a flexible and innovative approach was required. The court would prioritise traffic offences in the morning, to dispense with all traffic-related matters before attending to criminal matters. The success of these initiatives is demonstrated in the following actions and outcomes:

- The court roll on traffic fines was posted on the court notice board, an hour before the commencement of the proceedings.
- Offenders used the information on the notice board to approach the prosecutor to finalise the offence out of court.
- The prosecutor is dealing with out-of-court fine-reduction settlements while the magistrate signs summonses and attends to other administrative work.
- Turn-around time for the cases is improved.
- There is better coordination between the enforcers (issuing authority) and the prosecutors.

Need for interorganisational KM

Emerging from these actions, we noted that without collaboration, poor KM about the caseload finalisation will continue to impact negatively on each organisations' objective of successfully finalising traffic offences. Also, that KM is a key driver of organisational performance (Bosua and Venkitachalam, 2013). The importance of KM, along with the organisationally embedded nature of knowledge about traffic law enforcement and its administration, implies that the participating organisations had to create, manage, share and utilise knowledge effectively in order to take full advantage of their combined knowledge (Teece, Pisano, and Shuen, 1997; Kamhawi, 2012). Similarly, we also noted that achieving such leverage is conditional

on the organisations acknowledging the significance of the three key components of KM: people, processes and technology (Omotayo, 2015).

Answering these questions affirmed the interpretation of the IKM literature which posits that, for KM to contribute to organisational efficiency, several organisational processes and interorganisational collaborations need to be aligned with organisational KM initiatives (Gold *et al.*, 2001). In this way, KM provided significant advantages, such as efficient service delivery through more efficient, productive, collaborative and quality processes, for each organisation as well as the interorganisational collaboration (Cong and Pandya, 2003).

5.2.3.2 Enablers

The identification of appropriate IKM enablers was guided by empirical research questions 3.3 (How effective is the knowledge management for case finalisation?) and 3.4 (How well can the IKM intervention designed to improve the case finalisation support the research objectives?).

Improvements that emerged from the actions taken by each organisation were as a result of enabling factors. These are presented below. The revised infringement notice is shown in Appendix Q.

Culture. The three participating organisations participated in complementary ways in the interorganisational action learning set. For example, the private company was cognisant of the notion of the learning organisation due to my doctoral studies and sought to acquire an understanding of its characteristics and implementation. The issuing authority used this opportunity to redefine its strategy for efficient client service in administration and finalisation of traffic offences. They also valued the prospect of being involved in this project because of the listed improvements they achieved through the interorganisational collaborations. In contrast, the prosecution team was anticipating the increase in the workload that would possibly result from the improved ways of administering traffic offences.

The action learning approach helped to create the psychological safety required to overcome the learning anxiety which typically creates resistance to change and paralyses action (Schein, 1993, 1995). Through the sense of psychological safety in the interorganisational LS, participants created an atmosphere of learning, exposed

one another to new concepts and created the conditions for testing new ideas. The reduction of learning anxiety enabled the development of new perspectives and the transformation of mental models and cultural assumptions so that transformational learning took place.

Technology. Learning led to the provision of more options to pay traffic fines, which in turn increased the rate of electronic payment of fines which is arguably as a result of improvement in external perceptions because offenders felt the impact that warrants of arrests have on being denied renewal of the vehicle licence disc. In terms of the NRTA, an issuing authority may refuse to issue a licence disc in respect of a motor vehicle if a warrant of arrest has been issued against the licensed owner of that vehicle. Fines can now be paid through electronic payment platforms (Appendix S), internet options, post offices, supermarkets and at the cashier's offices situated in the issuing authority and the courts.

Infrastructure. The enriched ability of employees to learn and develop was reflected in their addressing problem areas in the administration of traffic offences in cross-functional teams. The issuing authority's call centre operators have started to use a "hunt" facility on their telephone lines to ensure that no call from the public is unanswered. The "hunt" facility was implemented as a result of the LS and the facility automatically re-allocates a call to the next call centre agent if the call rings a minimum number of times without being picked up.

Traffic officers have demonstrated improved commitment to be trained and to keep abreast of new trends as well as to operate the cameras professionally. They now receive certificates that recognise their training (Appendix R). The prosecuting authority demonstrated their improved attitude towards teamwork by allowing more cases to be listed on the court rolls, and at times that are convenient for all participants in the prosecution process.

The re-prioritisation of court rolls and the resultant improvements in the structural display of the court-roll demonstrated that change was beneficial. Finally, the issuing authority recognised that there was a need for ongoing training and alignment to the NRTLEC in order to continuously improve the quality of its processes for the processing of traffic fines. While interpersonal trust and interdependence were a matter of collaboration and communication, ongoing statutory and standard

operating procedure training, as well as alignment to the NRTLEC, emerged as another fundamental improvement.

Oversight. Due to the observation that oversight on cases was an apparent weakness to the enabling system, we added oversight to Gold *et al.*'s (2001) list, substituting "measures" in Botha *et al.*'s (2008) list with "oversight" for interorganisational collaborations for the finalisation of traffic offences in the Midvaal local municipality. In this regard, we established an interorganisational oversight structure that provided a much-needed intervention to pull together individual and organisation-specific knowledge to the benefit of interorganisational success.

The envisaged interorganisational oversight mechanism, expected to be a key IKM enabling factor, was put in place. The oversight team was made up of senior officials from the participating organisations including the traffic chief, senior prosecutor and head of the operation in the private company. The team verified that the revised practices for the administration of traffic offences complied with regulatory requirements and that these practices were suitable administrative processes for the involved organisations. The core function of the interorganisational oversight group was to ensure that the proposed improvements that emerged from the LS process were properly implemented by the organisations. As the individual organisational activities progressed, the LS observed the significance of the IKM oversight role through (i) the reduction in loss rates on data images and (ii) improved collaboration that reduced administrator frustration.

The enabling environment was efficient due to the oversight structure. The supervisors ascribed the changes/improvements detected to (i) the focus on the statutory requirements and compliance, (ii) clearer definition and adherence to organisation-specific standard operating procedures and (iii) the execution of supervisory responsibilities to ensure management support for the successful prosecution of traffic offences.

As an additional KM enabler in an IKM setting, oversight redirected the mindset from individual organisations to a service system focus, such that the aspects of effectiveness and outcomes, the efficiency of the administrative network and the performance of individual actors were balanced (Laihonen, Jääskeläinen and Pekkola, 2014).

O'Dell *et al.* (1998) strongly maintain that the key reason KM efforts fail is that the enablers of KM remain poorly understood and managed. Allameh, Zare and Davoodi (2011) state that attention to enabling factors is essential because they encourage the role players to share their knowledge and experience with others while enabling concurrent and systematic growth of organisational knowledge. There is an acknowledgement of the importance of innovatively developing common meaning as a way to address differences when managing knowledge across different boundaries (Carlile, 2004).

The following scenario shows the positive contribution resulting from the introduction of “oversight” as an enabler for interorganisational collaboration to finalise traffic offences in the Midvaal local municipality.

Scenario testing of the designed intervention during court proceedings

The pilot test cases were enrolled for courts on 24 May 2017 for fines issued in terms of CPA c. 341 and 26 May 2017 for fines issued in terms of CPA c.56. These cases were the ones that were selected to undergo the improvements process as determined by the LS process. The purpose of this test was to evaluate and validate if the improvements from the LS process were feasible and useful to improve case success in the court of law. All interorganisational LS members were present at court on both days in order to observe and reflect on any issues or recommendations that may result from the court proceedings.

There was an apparent level of anxiety on the first court date as only the prosecuting authority representatives knew what to expect during the court proceedings. A sigh of relief was evident when an issuing authority representative lamented by saying:

now we shall see whether the past few months were worth the time spent or not! (IA1)

Notably, as one of the improvements, the court roll had been posted on the notice boards for public viewing. We saw some court attendees viewing the schedule, but we were not able to determine whether that was the normal traffic or offenders who were there to attend the proceedings. The wait was too long, especially for me because I constantly made notes and observed the other group members' body language and attitude towards what we considered an unnecessary delay; an extract

from these notes is provided in Appendix O. The prosecutions team was intermittently involved with the senior prosecutor, but it was unclear to us what the engagement was all about. With the sensitivity of not wanting to disturb the process, none of the other group members thought it appropriate to inquire about the engagement.

Three hours after the scheduled court time, we were informed by the prosecuting authority representatives (PRO1; PRO2) that they had managed to demonstrate the improvements in the quality and substance of the court documents. They told us they had presented a prudent submission to the magistrate, resulting in warrants of arrests being signed for all cases as no offender, despite having been summoned to court, was in attendance. (An extract from the court register of 26 May 2017, in Appendix P, provides an example of the magistrates' decisions.) This failure to attend court, we suspect, was a result of the historical situation where the magistrate, in spite of there being no alleged offender in court, simply struck traffic matters off the roll due to poor submissions from the prosecution, in turn, largely because of inadequate court documents. We were pleased that this weakness had now been addressed.

Interestingly, the prosecuting authority's representatives both informed us that the prosecution's chief infused the interorganisational learning strategy aimed at streamlining court processes by separating traffic and by-law offences from other conventional criminal offences. However, the magistrate was reluctant to take part in the process, particularly as the viewpoints formulated by the prosecuting authority did not receive strong backing from the clerk of the court. Accordingly, the NDPP had to be asked to intervene. In summary, it was difficult to get the magistrates involved in a change that they saw as being dictated by the prosecuting authority, even though the result was in line with the participating organisations' objectives.

Although actions based on suggested improvements were taken at the respective organisations, these actions would not have been effective in the absence of oversight by the designated senior officials. The enactment of the interorganisational oversight mechanism improved the quality and substance of the court documents, resulting in all fines being successfully prosecuted, finalised and warrants of arrest being issued.

5.3 Discussion of the application of KM theory to the practical problem

This section highlights some significant alignment of the body of knowledge to the practical problem.

The important KM processes in an interorganisational KM context are the acquisition of new knowledge from the participating organisations and its representatives, the capacity to transfer and share knowledge between partners, and the creation of new knowledge in collaboration (Lancini, 2015). As posited by Alavi (2000), these processes of knowledge acquisition, sharing and transfer with the resultant creation of new knowledge in collaboration, is dependent on the quality of the social construction between participants as evidenced by the findings reported earlier.

Hassan *et al.* (2012) concluded that trust-building practices between managers and workers could lead to high productivity and organisational commitment. My experience during the learning set process affirmed this conclusion. Since withholding and/or being unwilling to share information can be detrimental to knowledge articulation, internalisation and reflection (Hedlund, 1994), interorganisational trust can originate with the trust of individual members of those organisations (Zaheer *et al.*, 1998), and is critical to IKM.

Through the interorganisational action learning approach, participants developed a focus for their operational improvement efforts, acquired commitment from colleagues in their respective organisations and used the identified resources to take action through teamwork. At the same time, they developed collaborative systems, both internally and externally, and used co-generated instruments to generate and handle internal and external feedback. Effectively, as a learning set, we developed learning systems through consolidating experience and active reflection; we evaluated achievements as we moved along and recognised the barriers encountered as we tackled issues.

Furthermore, I can now relate to Gold *et al.*'s (2001) conclusion derived from various studies that there is a strong correlation between organisational effectiveness and KM processes and enablers. The LS initiated and implemented action to have each participating organisation update and change its internal processes for the administration of traffic offences. We added oversight as a fourth IKM enabling factor to complement the three factors identified by Gold *et al.* (2001). Pilot testing of the

changes that were put into place demonstrated that, while enabling factors such as technology, structure and culture have the power to guide KM within organisations, interorganisational processes require an additional enabler for oversight and integration. The oversight mechanism for administration of traffic offences in the Midvaal Local Municipality that emerged from this research was an interorganisational structure that took responsibility for compliance with regulatory instruments and effective interorganisational coordination.

I found that the commitment demonstrated by the senior officials regarding the oversight structure further encouraged administrators to share their knowledge and experience with others and to let interorganisational knowledge grow concurrently and systematically. As a mechanism for the three organisations to develop knowledge and stimulate the creation, sharing and protection of knowledge – within, as well as between, the participating organisations (Yeh, Lai and Ho, 2006) – the oversight structure validated the interorganisational learning set's efforts to produce prosecutable court documents to validate the LS process outcome through successful prosecution of test cases (Action 6).

In line with Schein's (1995) research on interorganisational learning consortia, the interorganisational LS helped translate the academic ideas that I presented into administrative and operational language and action. This is evidenced by the ability of LS members to respond to the empirical research questions more accurately through discussions than when they were to respond to a questionnaire that contained academic language. As a scholar-practitioner, I took it upon myself to bridge the gap between theoretical concepts and practice. The LS further provided emotional support and empathy for members, and LS members similarly supported colleagues in their own organisations as the change was implemented. In addition, LS members mutually provided education and training in the KM processes involved in the administration of traffic offences and how to implement new ideas in members' respective organisational settings. Lastly, the LS provided a setting of psychological safety which is imperative for change agents to overcome the learning anxiety that typically creates resistance to change and paralysis action (Schein, 1993).

I observed that group learning is more important for solving interorganisational problems than individual learning. Vasquez *et al.* (1993) found that people learnt

more in a group compared to learning individually. In particular, as Seifert and Hutchins (1992) observed, I observed how mistakes that are made in a group context could be corrected from multiple perspectives and also corrected faster than the individual learners (Seifert and Hutchins, 1992).

I also observed the emergence of a culture where administrators are not afraid to evaluate current KM processes, taking advice from each other and relying on facilitation where necessary. A comment from the traffic chief that

I have never imagined such a close working relationship with the local senior prosecutor, especially when we can demonstrate our commitment to finalise the cases and apprehend offenders! (CTO)

I couldn't agree more, Chief! (SP)

led me to appreciate that managers in the participating organisations have started to develop a focus for their operational improvement efforts as they seek commitment and resources to achieve their operational objectives through teamwork and collaboration.

5.4 Discussion of the implementation of the planned change through action research

This section describes how the action research method benefited the study.

Through this study's action research process, the LS members have been able to work in cooperation with each other to achieve valuable results. Collaborative working with others lead to interorganisational learning as well as organisational, administrative changes while the research process was underway. The LS also experienced change as a result of exposure to the study (Brydon-Miller, Greenwood and Maguire, 2003). Throughout the process, LS members were encouraged to follow the research problem wherever it took them; regardless of the uncertainties and risks involved, they had to persevere since there was a common aim of bringing positive changes to the administration of traffic offences.

Action research welcomes uncertainty, complexity, and the struggle for the possibility to address the research problem. Despite the many benefits associated with action research, the LS members were faced with multiple challenges. One key problem entailed attempting to improve each individual participant's areas of practice.

Nonetheless, the actions taken within the respective organisations, as reported in Chapter 4, demonstrated notable improvements within each organisation.

Throughout the NALP process, we saw that preparation for change was essential if we were to move from the present to the future of successfully administering traffic offences and to manage the intervening period as we continue to enact our propositions. In order to build commitment to the agreed changes, we had to engage constantly with one another to find areas of agreement, while resolving conflicting views and negotiating cooperation (Fisher and Ury, 1986; Ury, 1991). Without the appropriately experienced and technically competent participants who constituted the learning set as the core project team, the management of implementation for actions that were undertaken within each participating organisation would have been challenging for me as the insider-researcher and scholar-practitioner.

I learnt that change processes during action research involve continuous interaction between constructing, planning, action and review to facilitate the change movement within the system (Beckhard, 1997). Although it was sometimes difficult to predict whether the actions being taken within each organisation would yield results that would enable the achievement of the research objectives, I remained mindful of my responsibilities as an insider-action researcher. In this role my focus was on constructing, planning, taking and evaluating action on different issues and on several fronts along the action research path, while at the same time applying the general empirical method of being attentive, intelligent and responsible to the enactment of the agreed cycles. The need to continuously reflect on actions being taken exposed me to a living practice that anticipated issues and generated emergent learning in action (Darling and Parry, 2000). As a guideline during the taking of action in each organisation, I encouraged each participant not to be afraid to ask critical questions of their colleagues but to do so in a manner that does not evoke guilt or blame. The questioning was supposed to be geared towards answers that would generate learning about what is currently taking place within their administrative processes and what needs to be adjusted to successfully finalise traffic offences.

In terms of the framework used during the learning set process, I observed apparent relationships between the proposed KM enablers and processes. For instance, the

collaboration environment has been useful in facilitating a culture within which agreed administrative processes are enabled. IT support provided by the private company had a positive impact on the combination of knowledge from the involved organisations, drawing from the operational infrastructure, which is characterised by adequate resources and material to effectively process knowledge. Oversight provided constant monitoring of operational plan implementation. Accordingly, I observe that without KM enablers, KM processes would be difficult to actualise.

During my personal reflections on the challenges experienced, it became clear that what was needed was to support organisational action-taking by managing the transition to the new processes and practices through a high level of openness both towards one another and to change across the interorganisational collaboration. In effect, this resulted in a need for a dynamic and continuous learning process at the individual, group, organisational and interorganisational levels to cope with the rate of change that was being experienced (Beckhard and Harris, 1987). Systematically, I directed the process to link our research themes and related questions to enable us to effect change through learning how the change can be used as a catalyst for continual learning within each organisation.

For myself, applying the principles of my experience in general management to myself and the project, and being challenged by the action learning set, were important aspects of learning. Almost equally, the participants and their respective organisations learnt to change and managed to adapt themselves to meet the challenges of incorporating an interorganisational oversight structure in the administration of traffic offences. There was a major positive impact on the issuing authority when the court successfully prosecuted the traffic fines and warrants of arrests signed.

5.5 Conclusions about the research findings

The fundamental concern of this research was whether attention to KM and IKM might improve collaboration among the three organisations most closely involved in the prosecution of traffic offences in the Midvaal municipality. This research showed that collaboration is a cornerstone for the successful prosecution of traffic offences. Furthermore, the findings are consistent with the literature. The next chapter presents conclusions about the research and the lessons learned from the research.

CHAPTER 6. CONCLUSIONS

6.1 Introduction

In focussing the research problem, I wondered if attention to IKM might improve collaboration among the three organisations most closely involved in the prosecution of traffic offences in the Midvaal municipality. In other words, I sought to understand whether and, if so, how application of KM and IKM might improve collaboration in the prosecution of traffic offences in the Midvaal municipality in a way that could increase the rate of successful prosecution. Lancini (2015) posited that the important KM processes in an interorganisational KM context are the acquisition of new knowledge, the capacity to transfer and share knowledge between complementary organisations, and the creation of new knowledge in collaboration. My research, which drew on Lancini's processes revealed that the application of KM and IKM could improve collaboration in the prosecution of traffic offences in the Midvaal municipality in a way that increases the rate of successful prosecution. Also, valuable actionable knowledge emerged, as discussed in section 6.3. The subsequent sections will elaborate on the research contributions and the study's limitations.

6.2 Summary of the findings

The research produced answers to the three main research questions. The answers are summarised below.

RQ 1. What is the knowledge base for the administration of traffic offences in the Midvaal local municipality?

The knowledge base for the administration of traffic offences in the Midvaal local municipality exists in both explicit and tacit forms. This finding is consistent with the literature. The reason for this consistency appears to be that organisations should maintain an appropriate balance between explicit and tacit knowledge since the two are mutually dependent and reinforce qualities of knowledge (Polanyi, 1975).

RQ 2. How is the knowledge for the administration of traffic offences in the Midvaal local municipality accessed and integrated?

The creation of knowledge sharing networks is vital to the process of collaboration and to improving interorganisational knowledge integration. Although these findings

are consistent with the literature, especially in respect of the importance of the creation of sharing networks, Dyer and Nobeoka (2000) noted previous research that suggests several dilemmas associated with knowledge sharing (collaboration) in a network setting. To mitigate against these dilemmas and to ensure sustainable improvements in interorganisational knowledge integration, it is recommended that a successful knowledge-sharing network must devise methods to (i) motivate members to participate and openly share valuable knowledge, (ii) prevent free riders, and (iii) ensure efficiency in the speed and ease with which network members can find and access valuable knowledge within the network.

RQ 3. How can interorganisational KM improve the successful finalisation of the administration of traffic offences in the Midvaal local municipality?

An interorganisational institutional framework, as well as enablers, were identified as critical in order for the finalisation of traffic offences in the Midvaal local municipality to be successful (organisational performance). In this regard, it is shown that knowledge infrastructure capabilities and knowledge processes capabilities, as well as knowledge management enablers, impact organisational performance. For example, some research has focused on the relationship between enablers and processes (Hansen, 1999) and the emphasis of other studies is on the relationship between enablers and organisational performance (Gold et al., 2001), while this study emphasises an integrative perspective of the knowledge variables such as enablers, processes and organisational performance (Lee and Choi, 2003).

6.3 Actionable knowledge

The enabling changes derived from the interventions to address the research problem in line with the research themes that are sequenced in the “know-what” and then the “know-how”, resulted in the following actionable knowledge that can be useful in my organisation, to the organisations within the network and to other organisations in similar contexts.

Leadership policy and strategic planning. Collaborations in the interorganisational KM context are effective when they are supported by strategic plans that are driven from the organisational leadership. All participating organisations embarked on the enhancement of formal structures, initiation of regular interorganisational meetings at the supervisory and administrative levels, and monthly reporting and analysis of key

performance indicators for each area. These processes are now supported by an interorganisational oversight structure to provide quality assurance.

Organisation and communication. Organisational operations can be improved as a result of structures and communication systems that benefited from reduced interorganisational hierarchies within commonly shared processes. The private company's redesign of operations offices to accommodate traffic offence adjudicators from the issuing authority facilitated a shift to a more collaborative culture and responsive organisation. The monthly interorganisational meetings have improved communication and efficiencies.

Information and analysis. Information and communications technology can be used as one of the important enablers of the interorganisational knowledge management system, as it enhances efficiency. The private company enhanced training in key areas of its IT systems and networks. Also, the expansion of electronic document transfer increased the use of communication and collaboration applications such as Skype, Dropbox and TeamViewer.

Management of human capital. The achievement of successful finalisation of traffic offences can be possible when there is effective management of human capital through the interorganisational knowledge sharing culture that recognised experiential knowledge, and supporting this with further training. The private company and issuing authority increased internal and external training, improved job specification and the setting of more meaningful and measurable key performance indicators, including at the employee level. Trained personnel were certificated, thereby boosting morale.

6.4 Research contributions

6.4.1 *Practical: Interorganisational knowledge management and oversight for the administration of traffic offences*

Without the approach taken in this study, I believe it would have been difficult, if not impossible, to recognise the need to establish an independent interorganisational oversight structure to oversee the management of interorganisational knowledge for the administration and prosecution of traffic offences. It would also have been difficult, if not impossible, to test the feasibility of the changes in organisational and

interorganisational processes for the administration of traffic offences without an interorganisational team that assumed oversight responsibilities and put measures in place to demonstrate that ongoing improvement could be achieved. In addition to this specific task, action was taken to deal with interorganisational gaps and to broaden new practices into wider use across the three organisations. As evidence of successful oversight, improvements were realised in the turnaround speed for infringement production due to the alignment of data cleansing and verification processes. Enactment of the interorganisational oversight mechanism also improved the quality and substance of court documents, resulting in all test case fines being successfully prosecuted, finalised and warrants of arrest being issued.

Significant improvements were also evident in the quality and content of infringement notices, resulting in a reduction in public enquiries because of the quality of the motor vehicle image that appears on the infringement notice. The quality of information on the source document improved significantly resulting in reduced rejection rates. Electronic capturing of section 56 notice by hand-held scanning devices is a positive development that will reduce inaccuracies in data capture. There was a reduction in the number of calls logged into the issuing authority's call centre as the public are now able to view and pay their fines on the web. An additional improvement is envisaged with real-time notification by SMS or email of a generated infringement before it even reaches the infringer via post.

The actualisation of the oversight structure contributed to the emergent professional knowledge about the administration of traffic offences.

6.4.2 New professional knowledge

My reflections on the action learning process helped me to understand how meaningful interorganisational discussions can help each participating organisation make connections between the successful prosecution of traffic offences and responsible road-user behaviour. I also observed how implementing an additional KM enabling factor in the form of an institutionalised oversight structure, could improve the administrators' ability to perform effectively so that the DOJCD can successfully prosecute and finalise traffic offences.

After completion of the action learning project, I met with the chief prosecutor, notably on 5 July 2017, and with the traffic chief and traffic offence administrators in

the issuing authorities and my own organisation, regularly. Also, I have been invited to talk about the project and its results in meetings with officers in other municipalities. These meetings have confirmed my study's contribution to professional knowledge for the administration and governance of traffic offences in the Midvaal Local Municipality and its potential contribution to traffic law administration in other municipalities. These contributions are summarised in this section. Contributions to my own professional knowledge are discussed in more depth in Chapter 7.

6.4.2.1 Administrators

Administrators of traffic infringements, including the prosecutors, are talking more about their newly perceived roles as contributors to the bigger social agenda of transforming road-user behaviour through their commitment to ensuring that offenders are successfully prosecuted.

The formal and informal interorganisational discussions that took place during and after the action learning project have given administrators the opportunity to share their knowledge and beliefs. Active discussion and passionate listening to one another (as evidenced by the learning set minutes and my research journal) deepened their individual and mutual understanding of traffic law administration and prosecution.

In the course of discussions of traffic law administration, I am convinced that the administrators acquire meaningful learning. Through the adoption of cooperative learning techniques, especially during joint roadblock operations, administrators and officers have begun helping each other in a productive way.

6.4.2.2 Governance of the administration of traffic offences

The Midvaal Local Municipality has embarked on the process of developing new administrative standards that include an interorganisational oversight structure responsible for court roll and documentation quality and compliance control. As my organisation has been asked to develop an IT module to support the oversight structure, it seems challenging that the requested IT module might ultimately replace the proposed human oversight structure. I am confident that interorganisational

discussions and KM processes will be integral to meaningful learning as these proposed structures are developed.

6.5 Study Limitations

In addition to the eight metropolitan municipalities and 44 district municipalities, South Africa has 226 local municipalities, each with responsibility to enforce traffic offences within their jurisdictions (*Constitution of the Republic of South Africa*, 1996). The findings of this study may not necessarily be replicated if the research were extended to all issuing authorities in the country because two of the eight metropolitan municipalities administer traffic infringements in terms of the AARTO legislation. Nonetheless, the option for AARTO infringers to elect to be tried in court, where the prosecuting authority would be involved, suggests that the approach to the administration of traffic offences developed in this study is also relevant for localities that have adopted AARTO. The practical findings of this research are, therefore, likely to apply to all issuing authorities in the country.

Linking the study to my academic programme may have limited the number of action learning cycles. More learning cycles may have yielded different but complementary interventions to improve the administration of traffic offences. The time limitation also meant there was insufficient time to carry further actions forward on a formal basis, and there were no observations and reflections on the possible impact of the research findings on issuing authorities nationally.

Interorganisational action learning can be a plausible response to learning and breaking down interorganisational barriers in organisations that have a common goal. However, this study did not investigate the usefulness of interorganisational action learning among organisations that are not in a collaborative relationship, or whether this approach can work where LS members are from organisations that compete with each other.

Although the changes implemented in this study are likely to be applicable to all issuing authorities in the country, I recommend that further research that incorporates issuing authorities in other provinces be undertaken. This would have the explicit aim of testing the sustainability of the interorganisational oversight mechanism as an effective enabler of interorganisational knowledge management in the administration of traffic offences.

6.6 Conclusion

This research aimed to uncover whether and how application of KM and IKM might increase the rate of successful prosecution of traffic offences in South Africa, ultimately contributing to the reduction of the road accident death toll by reducing dangerous and unlawful behaviour on the roads. The research adopted an action research approach in which an LS comprising staff members from the three organisations involved in the administration of traffic offences in the Midvaal Local Municipality was established. The LS was established to work concurrently with existing formal organisational systems and to provide an environment that fostered questioning and reflection in action. Through a series of LS meetings, aligned with the research themes and KM theory, the LS was central to the overall action research project as it addressed research questions and developed action plans.

The three organisations began from different starting points with mixed perceptions about the proposed action learning process. The key issue for all three organisations was where to begin; as this was their first formal involvement in action learning, some uncertainties and mistrust underscored initial engagements. Each organisation agreed to commence with a consideration of traffic infringement knowledge resources that were available within the organisation and assess them using the research questions as a guide. Over several weeks, each organisation started to take action to improve agreed processes and practices under the leadership of its management. Significantly, the interorganisational group practised the art of working collaboratively and proactively identifying the next significant issues as the current ones were being addressed.

The next chapter discusses my personal development and concludes with some final thoughts and considerations about the entire research process.

CHAPTER 7. PERSONAL LEARNING, THOUGHTS AND CONSIDERATIONS

7.1 Introduction

Now that I have documented the answers to the research questions, related actions, and reflections and conclusions on the action learning and research projects, this chapter focuses on important aspects of my personal development as a meaningful, trustworthy and authentic leader through this DBA thesis. In particular, I will document my reflections on what have I learnt about the use of IKM processes in the administration of traffic offences as well as what can be learnt from the learning set experiences when we were seeking to improve our practice. I conclude by documenting how much meaningful learning during the action research meant to me as a scholar-practitioner.

7.2 Personal, organisational and structural lessons learnt

In chapter 1, I indicated, as one of the deliverables of this study that “At own-organisational level, the research is aimed at placing my organisation at a competitive advantage as the preferred traffic law enforcement support service provider to the government”. In this regard, I considered providing meaningful leadership and guiding the interorganisational process in a trustworthy manner to be important foundations. Yaghmour and Scott (2009) identified that governance and trust were the characteristics with the highest correlation with both individual and collective outcomes. Accordingly, I considered the institutionalisation of an interorganisational oversight structure (governance), as well as the development of more meaningful interorganisational discussions (trust), as milestones to assess the progress made in achieving the outcomes of this research.

I summarised my learning about enacting these principles through action research and action learning in the following way:

Activities of action research and the mindset of those involved in the process become an integral part of professional development at personal, organisational and structural levels. Research practitioners develop skills in analysing their own practice and begin to unconsciously utilise the principles of action research in their professional life. Through participation in action learning, participants derive benefits from following a meaningful sequence of

actions and the reflection time that is used to discuss strategies and methods. As a result, they can improve their respective organisational processes by taking action in their own organisations. Organisations that have complementary functions can use action learning to break down barriers to efficiency and effectiveness, and to build trusting relationships, fostering partnerships and cooperation. Encountering unfamiliar processes and challenges in each other's organisations brings about fresh thinking that is applied to structural challenges irrespective of the knowledge and expertise within the learning set.

These thoughts prompted me to consider a set of questions, which are listed below, about lessons I have learnt about my own practice through undertaking this research.

How do I need to change my approach to facilitate more meaningful leadership in my organisation?

Leading and facilitating the interorganisational learning set provided me with the opportunity to be involved at all levels in both diagnosing and making the changes needed. To ensure that my company provides effective support services for the finalisation of traffic offences, I have, through combining learning and doing, been more systematic when designing presentations to traffic and prosecution authorities and using more cooperative learning and knowledge sharing techniques.

Being exposed to the interorganisational environment that required me to be more conscious of other people's viewpoints, I have been more thoughtful when designing and presenting possible intervention strategies and have requested other role players to be more responsible when considering the appointment of traffic officers and administrators, as well as when they source systems to support their efforts in finalising traffic offences.

I have focused more on aspects of my work that concern the finalisation of traffic offences. The number of enquiries from issuing authorities for my company's services and personal involvement in the coordination of the oversight mechanism has since increased. The prosecutions teams in areas of my operation are increasingly providing more guided prosecution inquiries than in the past.

With regard to what I saw as the greatest challenge, I have improved the quality of engagements on traffic law administration matters during discussions with the issuing authorities. My role in the successful facilitation of a learning set that produced a successfully prosecuted court roll appears to have increased perceptions that I am trustworthy and authoritative.

Does presenting myself as trustworthy and authoritative enable the interorganisational oversight mechanism to perform at the required level?

Analysing the LS minutes as well as my field notes, I found that the length and quality of learning set members' discussions appear to have increased and improved over time. However, this could have been due to the matters under discussion and the attitude displayed by some LS members at different stages. In particular, summons-stage and warrant of arrest-stage infringements seemed to elicit higher quality responses, especially when discussing quality assurance. At the same time, I was able to observe that my authoritative facilitation of discussions around ensuring that the quality of court documents was of as high a standard as possible seemed to give prosecuting authority members more confidence in the intervention strategies that the LS was pursuing.

I have not been able to engage the magistrates to assess their personal views of the intervention strategy. Nonetheless, the magistrates make their decisions based on the prosecutors' presentations. The increased number of warrants of arrest being signed by the magistrates (100 % during the action learning project) is a demonstration of their satisfaction with the quality of the court rolls being presented by the prosecutors. I, therefore, consider that my study has been able to achieve the desired objective of practical improvement in the administration of traffic law offences.

Will introducing an institutionalised oversight mechanism improve the prosecutability of traffic offences?

The court roll and test cases files successfully submitted at the Meyerton court were successfully prosecuted after being scrutinised for quality and technical compliance by the interorganisational oversight mechanism. I discovered that an intervention like introducing oversight of the process as an interorganisational mechanism enabled administrators to make the connection to the successful prosecution of traffic

offences and road-user compliance. The oversight mechanism provided a platform through which traffic law enforcement stakeholders are encouraged to consider and adopt IKM processes that support ongoing collaboration. That the issuing authority is seeking to extend this idea with an institutionalised platform for interorganisational oversight is an indication that they see value in continuing oversight.

To what extent did more meaningful interorganisational discussions help each participating organisation make the connections between the successful prosecution of traffic offences and responsible road-user behaviour?

Having meaningful discussions regularly and allowing interorganisational oversight to monitor the quality of court documents, did help the respective organisations to make connections between the successful prosecution of traffic offences and responsible road-user behaviour. This approach can be contrasted with the only prior mechanism for interorganisational discussion, the monthly case flow meetings. The case flow meetings have focussed more on caseloads, the number of offences that must be closed in the system and lamentation of the court's human incapacity to handle the caseloads, rather than poor road-user compliance and the implications of unsuccessful finalisation and prosecution of traffic offences for the courts and compliance.

One piece of data to support my claim that interorganisational oversight is associated with meaningful discussions at a more strategic level comes from the minutes of a meeting held at the Kgetlengrivier municipality, which was not part of this study. After completion of my research, and based on lessons learnt from it, I met with another municipality's issuing authority, which was concerned about a call from the municipality's Justice Department to remove from the offence system all offences that were not summonsed within a year of the offence. The Justice Department was apparently trying to avoid having to administer the high volumes of court files that emanate from the printing, serving and processing for court roll preparation all summonses in the system. Discussions during the learning set meetings clearly helped the Midvaal issuing and prosecuting authorities to connect the impact of unfinalised traffic offences to road-users' culture of impunity. I drew on this lesson in my discussion with the concerned issuing authority, which

subsequently sent a response to the Justice Department alluding to the fact that there was no legislative mandate to remove the said cases from the system.

The most important lesson that I have drawn from observation and reflection on this action learning project is that progress in this type of project, involving more than one organisation, requires a comprehensive set-up for trust-building among the participating organisations and individuals involved, in addition to management support. Another lesson is that, in order to create an IKM enabling environment, an oversight mechanism is necessary to ensure a sustained commitment from participating organisations. My role as an insider-action researcher has not only been to facilitate, challenge and inspire in the interorganisational LS meetings, but also to analyse, document and discuss learning outcomes from the meetings with LS members, organisation chiefs, and my employees.

Additional lessons learnt and observations from the LS process and meetings included:

- I had to learn how to conduct myself as an insider action researcher.
- The acceptance of my leadership in an LS is dependent on the personal relationships between us.
- If I project the right attitude, then the process would run smoothly.
- I had to avoid arguing with people or passing moral judgements upon them.
- I had to avoid expressing opinions on sensitive topics.
- I had to learn when to ask questions and when not to question, as well as what questions to ask. In that way, I was sometimes able to anticipate the answers in the long run without even having to ask the question.
- Sometimes, I was able to learn answers to questions that I would not even have had the sense to ask.

7.3 What have I learnt about the use of IKM processes in the administration of traffic offences?

Considering the successful intervention from this research, it seems plausible to argue that interorganisational administrative processes must make IKM a focal point of service provision when responding to citizen needs and to provide integrated and

comprehensive service delivery. The interorganisational learning set's journey demonstrated that by, using human and intellectual resources available within their organisations, traffic law enforcement officers and administrators can benefit from IKM in a number of ways: (i) employees will have the opportunity to develop and enhance their skills, productivity and experience through group work and knowledge sharing, (ii) improvement in quality, innovation and efficiency will be achievable, and (iii) improved collaboration reduces duplication of work and improves service delivery.

Notably, the implementation of IKM initiatives requires support and dedication from the top management of all the participating organisations. Top management support influences how resources and time are allocated to enabling factors for the successful execution of the IKM plan, including oversight.

The interorganisational learning set that participated in this research helped me to facilitate the translation of academic ideas into practical administrative and management language. This also meant that, in addition to being exposed to current theories and practices in traffic law enforcement processes, LS members were exposed to actualising theory into practical outcomes.

The interorganisational learning set provided emotional support and empathy for all members as they were implementing the agreed changes, as well as mutual education and training on some processes which they were not previously exposed to. An added benefit for the design and implementation of improvement initiatives was the ability to develop the psychologically safe setting that was required to overcome the learning anxiety commonly associated with resistance to change.

Another important lesson is that interorganisational collaboration is possible when there are clear rules which are understood, accepted and followed by all stakeholders. This approach to interorganisational collaboration contributed to an important conclusion from my action research study: that an oversight mechanism is a necessary additional enabler of IKM to improve the potential for the successful prosecution of traffic offences.

7.4 Final thoughts and considerations

Through action research, I have become a more reflective leader in my organisation and my industry. I have studied my leadership style and used the data I collected to

guide my actions within my organisation, in providing support to the other two organisations with which we collaborate in the administration of traffic offences, and in self-evaluation.

Throughout my DBA modular studies and the current project, action research has connected me to my supervisor, colleagues, clients and traffic law enforcement stakeholders. It is their feedback, combined with my journal that I have used to make changes in how I lead my organisation and influence how traffic infringements can be successfully finalised. A concrete result has been that the issuing authority gave my company an extension of contract after the traffic chief received a report on project status from her representatives in the LS.

I now live closer to my values and beliefs because of this project.

One thing that motivated me to undertake this study was to improve the percentage of successful prosecutions of traffic offences and to help stakeholders in the administration of traffic offences to make connections between a successful prosecution of traffic offences and compliance to traffic laws by road-users. I gained a lot of satisfaction and pride in my actions when a senior prosecutor from another Province told me that my project had highlighted the importance of focussing on successful finalisation and prosecution of traffic offences as this would ensure that not only those law-abiding citizens who pay their fines before receiving a summons are punished.

At own-organisational level, the research was aimed at placing my organisation at a competitive advantage as the preferred traffic law enforcement support service provider to the government. Through learning from participation in the project, my organisation has become a more compliant and quality-driven environment, and this has an improved impact on the collaborative organisations that are involved in the chain of traffic offence administration. I am now more process-driven and believe that processes need enabling factors in order to yield the desired outcomes. I have developed the capacity to construct knowledge based on my personal experiences, and I facilitate and contribute presentations to more meaningful and insightful discussions in various forums. By monitoring the attitudes of the administrators and leaders of my company's collaborating organisations, I listen more, detecting

misconceptions and giving solicited and unsolicited feedback. I learn from my colleagues and support structures.

Action research has given me a systematic way of instituting changes in my organisation, in my engagements with my colleagues from collaborating organisations, and evaluating if potential changes are worthwhile. I will continue to prepare and facilitate meaningful presentations and discussions and use action research as a tool to evaluate the impact that these presentations and discussions are having on myself, my organisation and the industry. I will plan, act, observe and reflect in order to bring about an improvement in my own practice (Birley and Moreland, 1998).

Through action research, I have also had the opportunity to engage in my profession and participate in systematically finding a solution to challenges within my industry. The part of this action research project that has been most pleasing to me is to live closer to my ethical, social conscience and professional values. I have gained from the explicit value basis that characterises action research since my intention as an action researcher was to bring about a situation that is congruent with my value position (McNiff, Lomax and Whitehead, 1996). Since starting my organisation, I have long believed that administrators of traffic infringements need to visualise that what they are involved in fits within the broader social agenda of curbing and reducing road fatalities.

Through the constructivist methodologies that the learning set employed, which have now permeated throughout the three participating organisations, administrators of traffic infringements can connect what they know and what they have experienced to the successful finalisation of traffic offences. Through this action research project, I have been able to demonstrate my passion, trustworthiness and dependability as I facilitate discussions on why interorganisational collaboration and KM enables the achievement of organisational objectives.

Through regular interorganisational meetings, administrators can learn how their organisational processes fit with those of other organisations, allowing them the opportunity to streamline processes and avoid duplication. I am a believer in administrators thinking critically about how their operations and administrative functions impact on the social issues around them. By focussing on finalising

offences, administrators have begun to relate their work to the possible positive contribution they will make to the improvement of traffic law compliance in South Africa.

I did not travel this journey alone as my organisation; the issuing authority and the prosecuting authority also had to be active participants. Through this action research project, I have learnt a lot from my colleagues, peers and supervisor and myself. This reflexive journey has been the most important lesson of this project because I have learnt that I can effectively change in myself, my organisation, and collaborating organisations if I reflect on my own thoughts and the thoughts of my colleagues, peers, supervisor and my clients.

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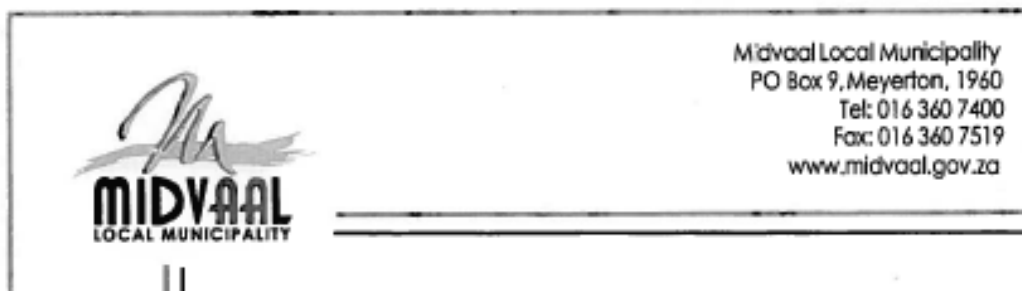
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Appendix A ORGANISATIONAL PERMISSION TO CONDUCT RESEARCH

Midvaal Local Municipality



Tel: 016 360 7500 • Fax: 016 362 2632 •

PROTECTION SERVICES

18 May 2016

The Research Governance Officer
International Online Research Ethics Committee
University of Liverpool
Liverpool,
Merseyside L69 3BX,
United Kingdom

liverpoolethics@ohcampus.com

Dear Members of the IORE Committee:

On behalf of Midvaal Local Municipality, this serves to inform you of our awareness of the research proposed by Albert Mokoena, a student at the University of Liverpool's online Doctorate of Business Administration programme.

We are aware that Albert Mokoena intends to conduct his research entitled "The contribution of knowledge management to the improvement of traffic law compliance in South Africa" by using some of our officials, who have been identified by us, to form part of an inter-organisational learning group to identify important administrative challenges to successful finalisation of traffic law infringements and to test the feasibility of appropriate interventions to address the problem.

As the Traffic Chief, I have the executive responsibility of administering traffic infringements in the Midvaal local municipality.

Permission is hereby granted for Albert Mokoena to conduct his research at our organization.

Should you have any queries, please feel free to contact my office at +27 (0)16 360 5902, or annam@midvaal.gov.za.

Yours faithfully,


A. MOKOENA

CHIEF TRAFFIC OFFICER
PROTECTION SERVICES



MAVAMBO ITS



May 18, 2016

The Research Governance Officer
International Online Research Ethics Committee
University of Liverpool
Liverpool,
Merseyside L69 3BX,
United Kingdom

liverpoolethics@ohcampus.com

Dear Members of the IORE Committee:

This serves to inform you of our awareness of the research proposed by Albert Mokoena, a student at the University of Liverpool's online Doctorate of Business Administration programme.

We are aware that Albert Mokoena intends to conduct his research entitled "The contribution of knowledge management to the improvement of traffic law compliance in South Africa" by using some of our officials, who have been identified by us, to form part of an inter-organisational learning group to identify important administrative challenges to successful finalisation of traffic law infringements and to test the feasibility of appropriate interventions to address the problem.

As the IT Manager, I have the executive responsibility of ensuring that all systems are in place and functional for administering traffic infringements in all the municipalities where the company has contracts.

Permission is hereby granted for Albert Mokoena to conduct his research at our organisation.

Should you have any queries, please feel free to contact my office at +27 (0)11 494 0903, or oshibambu@mavamboits.za.

Yours faithfully

OSCAR SHIBAMBU
IT MANAGER



Office of the National Director of Public Prosecutions

8/16/2016

Gmail - FW: Message from "RNP00267395974B"



Ali Mokoena <alimokoena@gmail.com>

FW: Message from "RNP00267395974B"

1 message

Kefiwe IKM. Ramatsekane <kramatsekane@npa.gov.za>

15 August 2016 at 09:13

To: "alimokoena@gmail.com" <alimokoena@gmail.com>

Cc: "Marthi Du Plessis (MAS)" <MDuPlessis@npa.gov.za>, "Kefentse K.J. Mojaki-Moremogolo" <Kmojaki-moremogolo@npa.gov.za>

Dear Mr Mokoena

Attached, please find approval for conducting research interviews in the NPA. Please note that your request has been approved without any fee charges because, according to your request you are only going to conduct interviews not request documents.

Hope the above is in order and if there is any misunderstanding please call Kefentse Mojaki-Moremogolo our Senior Researcher.

Kind regards and good luck with your studies.

Kefiwe Ramatsekane

PERSONAL ASSISTANT/RESEARCH MANAGEMENT

TEL: 0128457034

Fax: 012843 3034

Cell: 060 3053756

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The National Prosecuting Authority of South Africa

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OFFICE	2018-06-30
FROM	TO

**Office of the
National Director of Public
Prosecutions**



Mr. A. MAKDENA

**FROM : ADV. E.K. ABRAHAMIS
NATIONAL DIRECTOR OF PUBLIC PROSECUTIONS**

SUBJECT : RE: REQUEST TO CONDUCT RESEARCH STUDY

Tel: +27 12 845 6000
Fax: +27 12 845 7291

Victoria & Griffiths
Mengo Building
23 Westlake
Avenue
Westend Park
Sherton
Pretoria

P/Bag X762
Pretoria
0001
South Africa

www.npa.gov.za

Dear Mr. Makodena

I hereby acknowledge receipt of your request for NPA participation in your research project entitled: "Improvement of traffic law compliance in South Africa – a knowledge management approach".

Please consider and/or adhere to (whichever is applicable) to the below-mentioned in support of your research:

1. Be advised, that for the purpose of consistency, before permission can be granted the NPA will need a letter from the University of Liverpool that (a) endorses the proposed study and (b) includes its commitment to ethical research practices.
2. It is suggested that in the event of the author wanting to publish an article on the research which contains NPA information, the content of such an article needs to be approved by the NPA in writing. This is specifically to prevent the inappropriate interpretation and publication of the latter mentioned information.
3. Approval is subject to completion of the request for access to records of a Public Body (FORM A, Section 18(1) of the Promotion of Access to Information Act, 2000).

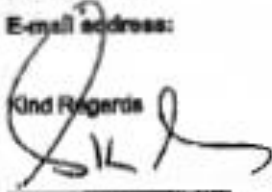
Justice in our society, so that people can live in freedom and security

Page 1 of 2

Kindly keep the NPA informed about further developments and please send your response to the Director: Research Management. The details of the Director are as follows:

Name:	Ms Marthi du Plessis
Telephone number:	012 845 8276
Fax number:	012 843 1078
E-mail address:	mduplessis@nps.gov.za

Kind Regards


Adv. S.J. Abrahams
National Director of Public Prosecutions
Date: 6-7-2016

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Page 2 of 2

REQUEST FOR ACCESS TO RECORD OF PUBLIC BODY
(Section 18(1) of the Protection of Access to Information Act, 2000)

Request received by M. G. M Reference number: AP4-UTM-24

Access four **R**esources online at www.pearsoncmg.com

Information Officer _____ Signature of Information Officer/Deputy

No fee are going to
be charged, per
the Unit owner.

The Information Officer/Deputy Information Officer:

M. C. M. MAGSUTANA
DIRECTOR, ADMINISTRATION, CORRECTIONAL AGENCIES, OWA
DES MOINES, IOWA
JANUARY 10, 1967

- (a) The particulars of the person who requests access to the record must be given below.
- (b) The address and/or fax number in the República in which the information is to be sent, must be given.
- (c) Proof of the capacity in which the request is made, if applicable, must be attached.

Full names and surname: **ALBERT MOKOENA**

Identity number: 0105225656082

Postal address:

P.O. Box 1194

ELDORADO PARK 1213

Fax number:

011 494 0913

Telephone number:

082 993 5999

E-mail address:

alimokeena@gmail.com

Specify in which request is made, when made on behalf of another person:

C. PARTICULARS OF PERSON ON WHOSE BEHALF REQUEST IS MADE

This section must be completed ONLY if a request for information is made on behalf of another person.

Full name and surname:

Identify number:

D. PARTICULARS OF RECORD

- (a) Provide full particulars of the record to which access is requested, including the reference number if that is known to you, to enable the record to be located.
(b) If the provided space is inadequate, please continue on a separate folio and attach it to this form.

The requester must sign all the additional folios.

1. Description of record or relevant part of the record:

ALLOCATION OF TWO OFFICIALS WHO ARE RESPONSIBLE FOR ADMINISTERING TRAFFIC LAW INFRACTIONS FROM THE MIDVAAL LOCAL MUNICIPALITY TO FORM PART OF A WORKING GROUP TO IDENTIFY CHALLENGES TO SUCCESSFUL FINALISATION OF TRAFFIC LAW INFRACTIONS AND POSSIBLE INTERVENTIONS TO ADDRESS THE PROBLEM, AS PART OF MY DEGREE OF BUSINESS ADMINISTRATION STUDIES WITH THE UNIVERSITY OF LIVERPOOL.

2. Reference number, if available:

3. Any further particulars of record:

8. FEES

- (a) A request for access to a record, other than a record containing personal information about yourself, will be processed only after a request fee has been paid.
 (b) You will be notified of the amount required to be paid as the request fee.
 (c) The fee payable for access to a record depends on the form in which access is required and the reasonable time required to search for and prepare a record.
 (d) If you qualify for exemption of the payment of any fee, please state the reason for exemption.

Reason for exemption from payment of fees:

ACADEMIC PURPOSES

F. FORM OF ACCESS TO RECORD

If you are prevented by a disability to read, view or listen to the record in the form of access provided for in 1 to 4 below, state your disability and indicate in which form the record is required.

Disability	Form in which record is required:

Mark the appropriate box with an X.

NOTES:

(a) Compliance with your request for access in the specified form may depend on the form in which the record is available.

(b) Access in the form requested may be refused in certain circumstances. In such a case you will be informed if access will be granted in another form.

(c) The fee payable for access to the record, if any, will be determined partly by the form in which access is requested.

1. If the record is in written or printed form:

<input type="checkbox"/> copy of record*	<input type="checkbox"/> inspection of record
--	---

2. If record consists of visual images - (this includes photographs, slides, video recordings, computer-generated images, sketches, etc.)

<input type="checkbox"/> view the images	<input type="checkbox"/> copy of the images*	<input type="checkbox"/> transcription of the images*
--	--	---

3. If record consists of recorded words or information which can be reconstructed in sound:

<input type="checkbox"/> listen to the sound-track (audio cassette)	<input type="checkbox"/> transcription of sound-track* (verbal or printed document)
---	---

4. If record is held on computer or in an electronic or machine-readable form:

<input type="checkbox"/> printed copy of record*	<input type="checkbox"/> printed copy of information derived from the record*	<input type="checkbox"/> copy in alternative readable form* (softy or compact disc)
--	---	---

*If you requested a copy or transcription of a record (above), do you wish the copy or transcription to be posted to you? (Postage is payable.)

<input type="checkbox"/> YES	<input type="checkbox"/> NO
------------------------------	-----------------------------

Note that if the record is not available in the language you prefer, access may be granted in the language in which the record is available.

In which language would you prefer the record?

G. NOTICE OF DECISION REGARDING REQUEST FOR ACCESS

You will be notified whether your request has been approved/ denied. If you wish to be informed in another manner, please specify the manner and provide the necessary particulars to enable compliance with your request.

How would you prefer to be informed of the decision regarding your request for access to the record?

alimokoen@gmail.com

Signed at JOHANNESBURG this 19th day of JULY 2016


SENATOR OF KENYA / PERSON ON
WHOSE BEHALF REQUEST IS MADE

Appendix B PARTICIPANT INFORMATION SHEET



Participant Information Sheet

1. Title of Study

Improvement of traffic law compliance in South Africa – a knowledge management approach.

2. Version Number and Date

Information Sheet V4-04.05.2016
May 2016

3. Invitation Paragraph

You are being invited to participate in a research study. Before you decide whether to participate, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and feel free to ask me if you would like more information or if there is anything that you do not understand. Please also feel free to discuss this with other people, including your supervisor and colleagues if you wish. I would like to stress that you do not have to accept this invitation and should only agree to take part if you want to.

Thank you for reading this.

4. What is the purpose of the study?

The purpose of the study is to identify important administrative challenges to successful prosecution of traffic law infringements and to test the feasibility of appropriate interventions to address the problem. This research is undertaken as part of my study towards a Doctor of Business Administration degree at the University of Liverpool.

5. Why have I been chosen to take part?

As an important role player in the administration of traffic law offences, you have been chosen to form part of an interorganisational learning set, a group that comprises members from Mavambo Intelligent Transport Solutions and the Midvaal Traffic Section as well as representatives from the court. Your knowledge base on the subject was used as a criterion when your supervisor identified you for the project.

6. Do I have to take part?

It is important that you understand that although you were identified by your supervisor as the most appropriate representative of your organisation in this study, your participation is voluntary and that you are free to withdraw at any time without explanation and without incurring a disadvantage as a result of your decision to withdraw. This assurance is contained in the consent letter provided by your organisation and which is available for your information and records should you require a copy thereof.

7. What will happen if I take part?

As a member of the interorganisational learning set, you will be required to apply your knowledge and experience of the administration of traffic law offences and related activities in checking the relevant laws that govern the administration of traffic laws, the internal documents within your own company that you use as guidelines for administering traffic offences, as well as any other relevant source of information to identify important administrative challenges that contributes to the lack of successful finalisation of traffic infringement cases. After combining all participants' contribution, the whole group will together come up with possible interventions to address the problem. Thereafter, the whole group will together test the feasibility of the proposed interventions within the group's workplaces as well as at the court. Your involvement can assist in the possible solution towards encouraging road user compliance on our roads.

8. Expenses and payments

There will be no compensation for participating in the study but you will be reimbursed for any expenses incurred during your participation.

9. Are there any risks in taking part?

There may be professional risks as a result of possible disclosure of neglect for workplace operational policies, poor work performance and questionable job advancement decisions. However, your superiors will provide written guarantees that these potential risks will not have any adverse impact on your employment, career advancement nor their view of you by them. However, should you experience any discomfort or disadvantage as a result of participating in the research, you should immediately inform me of such.

10. Are there any benefits in taking part?

This is a constructive step towards improving knowledge sharing and addressing interorganisational challenges to successful prosecution of traffic law infringements. In addition, the opportunity to test the feasibility of the resultant interventions on real cases in court will be an added incentive to participate in the project.

Although I wish to protect your anonymity as participants, taking part in the study will provide an opportunity for you to be acknowledged in the final report, should you give consent to be accordingly acknowledged.

11. What if I am unhappy or if there is a problem?

All complaints should be handled through the University of Liverpool Committee on Research Ethics complaints procedure. However, the following procedure is recommended:

If you are unhappy, or if there is a problem, please feel free to let the researchers know by contacting me on +27 82 995 5999 or my supervisor, Jane Klobas (Australian cell phone +614 1 201 2267 or Skype: jane-e-k) and we will try to help. If you remain unhappy or have a complaint that you feel you cannot come to us with then, you should contact the University of Liverpool's Research Governance Officer at ethics@liv.ac.uk. When contacting the Research Governance Officer, please provide details of the title or description of the study (so that it can be identified), the researcher(s) involved, and the details of the complaint you wish to make.

12. Will my participation be kept confidential?

The field notes from your discussions will not contain your names as I will use pseudonyms in order to protect your identity. The information you provide will also not be used for any purpose other than this research. Only I will have access to the unlinked information as the data will be stored on a password-protected computer. Accordingly, the information will remain confidential and there will be no "come-backs" from the contribution you make.

13. What will happen to the results of the study?

The operational results will be used to address the administrative challenges to successful prosecution of traffic law infringements, whereas the research results will be submitted in my thesis for academic purposes. A copy of the results of the study will be made available to the participants once approved by the university. Industry relevant articles from the study will be written and made available online and in various industry and government platforms. Participants will not be identifiable from the results unless they have consented to being so.

14. What will happen if I want to stop taking part?

You are free to withdraw at any time, without explanation. However, results up to the period of withdrawal may be used, if you are happy for this to be done. Otherwise, you may request that they are destroyed and no further use is made of them. In this regard, only your research data could be destroyed, but not necessarily your contribution to resolution of the operational problem.

15. Conflict of Interest

My position as Chief Executive Officer of Mavambo Intelligent Transport Solution will be separated from my researcher's role. Should you feel intimidated by my position at any stage, you are free to contact your supervisor to discuss the possibilities of addressing the conflict or possibly withdrawing from the process.

16. Who can I contact if I have further questions?

For further questions, feel free to contact the researcher, Mr. Albert Mokoena at the following contact details:

Email: albert.mokoena@online.liverpool.ac.uk OR alimokoena@gmail.com

Cell: +27 82 995 5999

Duty of care to research participants

This research has no potential for identifying a serious risk to the participant or others, as such no details of any procedures related to addressing such risks are provided in this Information Sheet.

Appendix C SAMPLE PARTICIPANT CONSENT FORM



Committee on Research Ethics

PARTICIPANT CONSENT FORM

Title of Research Project: **Improvement of traffic law compliance in South Africa – a knowledge management approach.**

Researcher(s): **Albert Mokoena**

Please
initial box

1. I confirm that I have read and have understood the information sheet dated 04 May 2016 for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☒
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my rights being affected. In addition, should I not wish to answer any particular question or questions, I am free to decline. ☒
3. I understand that, under the Promotion of Access to Information Act, 2000 (Act No. 2, of 2000) South Africa, I can at any time ask for access to the information I provide and I can also request the destruction of that information if I wish. ☒
4. I agree to take part in the above study. ☒

Participant Name

17/08/16
Date

Signature

Name of Person taking consent

17/08/16
Date

Signature

ALBERT MOKOENA

Researcher

20/08/17
Date

Albert Mokoena

Signature

Principal Investigator:
Jane Klobas
Skype: jane-e-k
Australian Cell: +614 1 201 2267



Student Researcher:
Albert Mokoena
Skype: albert.mokoena
South African cell: +27 82 995 5999
alimokoena@gmail.com

Optional Statements

- The information you have submitted will be published as a report; please indicate whether you would like to receive a copy. ☒ YES
- I understand that confidentiality and anonymity will be maintained and it will not be possible to identify me in any publications, unless I elect to be acknowledged in the final report. ☒ YES
- I agree for the data collected from me to be used in future research and understand that any such use of identifiable data would be reviewed and approved by a research ethics committee. ☒ YES
- I understand and agree that my participation will, where necessary, be audio recorded and I am aware of and consent to your use of these recordings for the purposes of analysing the data. ☒ YES
- I understand that I must not take part if... [list exclusion criteria, for example pregnancy] ☐ N/A
- I agree for the data collected from me to be used in relevant future research. ☒ YES
- I would like my name used and I understand and agree that what I have said or written as part of this study will be used in reports, publications and other research outputs so that anything I have contributed to this project can be recognised. ☒ YES
- I understand that my responses will be kept strictly confidential. I give permission for members of the research team to have access to my anonymised responses. I understand that my name will not be linked with the research materials, and I will not be identified or identifiable in the report or reports that result from the research. ☒ YES
- I understand and agree that once I submit my data it will become anonymised and I will therefore no longer be able to withdraw my data. ☒ YES

FOR MARIARC PROJECTS ONLY:

- I agree that my GP may be contacted if any unexpected results are found in relation to my health. ☐ N/A



5. Meet to report results to the superiors and obtain permission to produce court documents on outstanding fines that have been prepared using the approaches identified during the research process.
6. Collaboratively produce court documents at a work-group session and have these put on the court roll.
7. Meet to evaluate/attend to court proceedings and report back to the superiors.
8. Meet to agree on further approaches to improve quality of documents or signing-off on the intervention strategy and production of standard operational procedures for successful finalisation of traffic law infringements.

Detailed description of the work group meetings

First, each member of the action learning group will assess the existing statutes, including by-laws and regulations that inform the administration of traffic laws and related offences and list all relevant provisions that would pervade a comprehensive knowledge-base for the administration of traffic offences. The assessment instrument will then be compared with each organisation's internal standard operational guideline, if any. All steps will be conducted with the research questions in mind.

Second, each member of the action learning set will present their assessment instrument within two weeks after the first step to the inter-organisational action learning group to compare and obtain an agreement regarding the completeness or not, of the assessment instruments. The organisation's representatives will be required to share their experiences and lessons during the assessment of the identified and agreed knowledge resources, as well as suggesting solutions to problems that may have been experienced by their colleagues from their peer organisations. An agreement will be reached on the sample cases for testing. //

Third, having received feedback on the change initiatives, each organisation will update their instruments and test the applicability of the change initiative within their respective workplace and provide feedback within a month of the testing.

Fourth, the inter-organisational action learning group will meet again and develop an intervention instrument which will be presented to a meeting which includes the Traffic Chief as well as the Chief prosecutor. The inter-organisational action learning group will receive and note the feedback from the two chiefs on action learning set's initiatives. The inter-organisational action learning group will develop an improved intervention instrument incorporating feedback received during the session with the two chiefs.

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Jane Klobas
Skype: jane-e-k
Australian Cell: +614 1 201 2267

Student Researcher:
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South African cell: +27 82 955 5999
alimokoena@gmail.com

Fifth, each organisation will implement the agreed instrument within their respective organisations, noting possible improvements that might be necessitated by the implementation. The inter-organisational action learning group will then meet within two weeks after the fourth step to assess their respective experiences on the case finalisations that have been influenced by the implementation of the new instrument.

Sixth, the inter-organisational action learning group will present the improved intervention instrument to the two chiefs for matching against the initial change agenda. Possible improvements, if necessary, will be noted and enacted by the inter-organisational action learning group and implemented within their respective organisations.

Lastly, cases that have been prepared using approaches identified during the research project will be submitted to the court/s for possible prosecution. The inter-organisational action learning group will attend the court hearings to observe and take note of the magistrates' adjudication of the cases. Mindful of the need to monitor the cases being finalised out of court, the inter-organisational action learning groups will take their lessons from real-time court hearings to improve any aspect of their work methods through another cycle until a marked improvement as measured by the agreed percentage at the commencement of the process is achieved, marking the exit point of the cycle.

Agenda for the first work-group meeting

Date: September 7, 2016

Venue: Boardroom, Midvaal Traffic Department

Time: 14H00

1. Opening and welcome

2. Introduction:

Personal

In this section, personal introductions will be made by each work-group member, stating the nature of their work functions and the duration of their involvement in those functions.

Project

In this section, I will present the purpose and rationale of the research, both in the academic and organisational contexts. This will involve stating why the action I have chosen is worth doing, why it is worth studying and what it is that it contributes to the academic space and practice. While it will be important to emphasise the location of

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the research in an academic context, I will lean my focus towards the social and organisational context as I believe the group would relate more to that aspect. I will also highlight the importance of their roles in the generation of useful knowledge which is aimed at producing outcomes which are of social and organisational value.

Secondly, I will revisit the ethics aspects of the research, giving them an opportunity to engage me on any aspects of the ethics process which might be of discomfort to them, while an acknowledgement of the positive aspects will also be made.

3. Declaration of interests

In this section, I will attempt to address possible ethical issues to cover all eventualities as much as possible. Each member will be given the opportunity to declare any possible conflict or association with any institution whose knowledge base might be relied upon during the project.

Mindful of the importance of being true to the process, I will ensure that this item is dealt with as authentically as possible.

4. Discussion on the methodology

In this section, I will present the proposed methodology, the frequency and number of meetings and allow members to make their contribution.

I will then seek their understanding of the project, its process as well as concurrence on the formal and psychological contract we are signing within the system of administering traffic infringements for the betterment of our organisations and the society.

5. General discussions

This section will provide an opportunity for members to discuss any other issue relevant to the project but not covered in the earlier sections.

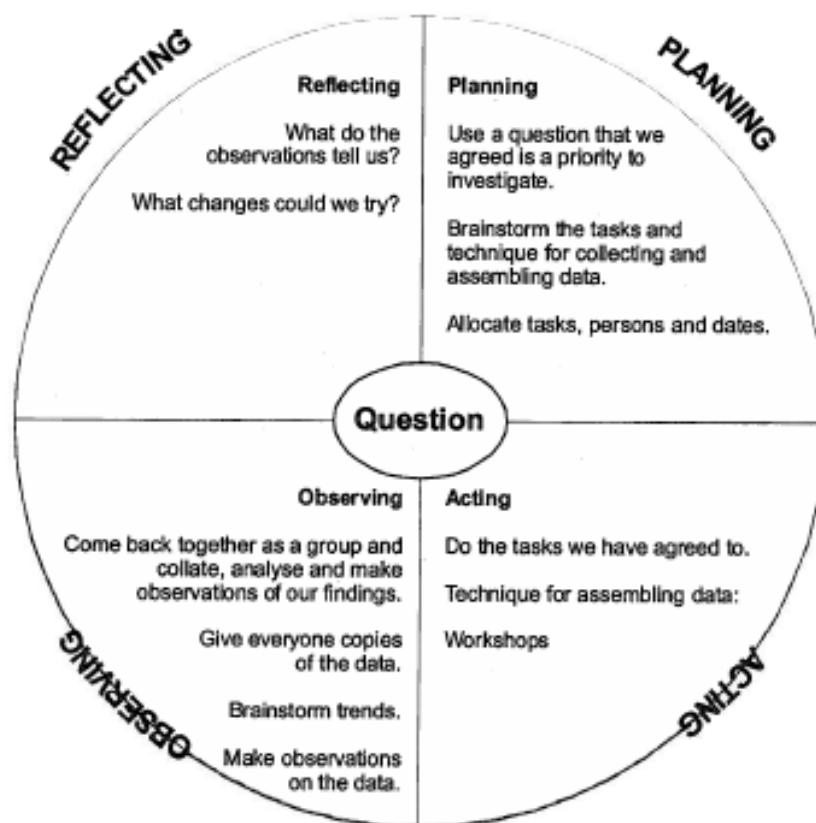
6. Closure

This section will summarise the meeting discussions, as well as agreeing on the next meeting date.

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Appendix D LEARNING SET RULES OF ENGAGEMENT



RULES OF ENGAGEMENTS:

Take responsibility for your actions!

Respect other members' views!

Show honesty when engaging with other members!

This document is designed to provide for systematic participation and rules of engagements and SHALL be distributed at each meeting

Appendix E PROTOCOL FOR FAMILIARISATION OF PARTICIPATING ORGANISATION CHIEFS



B1
Sample Orientation

Thesis title: Improvement of traffic law compliance in South Africa – a knowledge management approach.

Researcher: Albert Mokoena

Date: 19 August 2016

Anticipated inter-organisational group meetings

At least eight group meetings of between one to two hours each, every fortnight to a month will take place as follows:

1. Briefing meeting by the researcher with all participants' organisational representatives as well as the members of the inter-organisational learning group.
 - i. Assessment of public knowledge-resource instruments on the administration of traffic law enforcement as well as internal organisational documents. (2 weeks)
2. Feedback group meeting without superiors to compare results of individual assessment of knowledge resources and agree on implementation test strategies. Determine pilot infringement sample for testing.
 - i. Implement tests within organisations. (2 weeks)
3. Meet to share initial test results, develop improved implementation approach/es and instruments.
 - i. Implement tests within organisations based on improved implementation instruments (approaches). (2 weeks)
4. Meet to share and present results on pilot sample to the superiors and take further improvement initiatives from the superiors.
 - i. Implement on basis of the improved initiatives.

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alimokoena@gmail.com

Appendix F QUESTIONNAIRE FOR LS MEMBERS

Thesis Title:

Improvement of traffic law compliance in South Africa – a knowledge management approach.

RESEARCH QUESTIONNAIRE

Research Questions to be answered by the learning set members:

The Research Problem:

The conducting of an inter-organisational action research study to identify important administrative challenges to successful finalisation of traffic offences and to test the feasibility of appropriate interventions to address the problem.

Primary Research Question: (**Conceptual Framework Purpose**)

- What possible improvements to the successful finalisation of traffic infringement cases can be identified?

The above-mentioned research question as well as the following three research themes and their subsequent questions were mapped onto the conceptual framework:

Theme 1: The identification and categorisation of knowledge-based resources in the administration of traffic law infringements. (**Conceptual Framework Content**)

Research Questions:

- Which legal instruments or statutes govern the administration of traffic laws offences? (What are the statutes that guide you to perform your duties in the administration of traffic offences)

- What technical knowledge for the administration of traffic laws offences exist? (What are the Technical Standard Operating Procedures that you need to follow to perform your duties)

- What administrative knowledge for the administration of traffic laws exist? (What are the Administrative Standard Operating Procedures that you need to follow to perform your duties)

-
-
- Who owns the experiential knowledge in the administration of traffic offences? (Who among the three organisations, private company, traffic department and prosecutions department has more experiential knowledge about the administration of traffic offences)
-
-
-

Theme 2: The existence of knowledge management systems to facilitate standard operational practices in the administration of traffic law infringements. **(Conceptual Framework Approach)**

Research Questions:

- To what extent has the existing knowledge been standardised or pulled together? (Is all the knowledge on the administration of traffic offences pulled together or standardised)
-
-
-

- How is the knowledge on the administration of traffic laws being managed? (Is there any process or system that ensures that the knowledge that you have is effectively shared and managed)
-
-
-

- How effective is the knowledge management in relation to the case load finalisation? (are there any structures and forums that ensure that cases are finalised and how effective are those structures)
-
-
-

Theme 3: The use of knowledge sharing between and across organisations to exploit and capitalise on knowledge-based resources as a fundamental means to enhance successful finalisation of traffic law infringements. **(Conceptual Framework Approach)**

Research Questions:

- How accessible is the knowledge on the administration of traffic laws? (How easy is it for you to access knowledge/information when you need to perform your duties)

- How is the knowledge on the administration of traffic laws being shared? (What processes are there to ensure that you can effectively share knowledge between all role players)

- Who are the knowledge-sharers? (Which institutions are supposed to share the knowledge to ensure that traffic offences are effectively administered and finalised)

- What platforms are being used to share the knowledge on the administration of traffic laws? (Structures that have been put together/established to ensure that such knowledge is shared)

- How often is the knowledge being shared? (How frequent are the meetings where knowledge is being shared, if any)

Appendix G SAMPLE LEARNING SET MEMBER REPORT ON ACTION TAKEN IN MEMBERS' ORGANISATIONS

D13

*Result of analysis by
Group members
in relation to their organisations*

Dear Mr Mokoena

Based on the data we received, the following is the result of the analysis of actions taken by each organisation:

The following operational improvements have been suggested by the data gathered during the second half of the learning and action plan implementation:

The Private company

The private contractor made a related series of changes to core areas of the operational practice. These were in the areas of IT systems redesign, process review and improvement, and alignment of printing, posting and debt collection processes. The changes to core areas of operational practice by the private contractor were enabled by corresponding changes in leadership policy and strategic planning, organisation and communication, information and analysis, and human resources management. These are summarised as:

IT system redesign: improvement of the data cleansing module to ensure that the search for the infringer's details is accurately aligned to the national database of vehicle and owner system.

Process review and improvement: increase in data verification processes and the establishment of a departmental structure to improve the quality of verifications.

Alignment of printing, posting and debt collection: Centralisation of printing and posting of infringements and the improvement of the infringement payment channels including the increment of the frequencies of roadblocks.

Corresponding changes in enabling areas are summarised as follows:

Leadership policy and strategic planning: enhancement of formal structures, the initiation of regular planned cross-functional meetings at supervisory management levels and the production level, and the monthly reporting and analysis of key performance indicators for each area.

Organisation and communication: redesign of operations offices to accommodate the traffic offence adjudicators facilitated a change to more collaborative culture and responsive organisation.

Information and analysis: enhanced training in all areas of the company's IT systems and networks, broadening of electronic document transfer increased the use of applications such as Skype, Dropbox and TeamViewer.

Human resource management: improvement of job specifications, the setting of key performance indicators and employee level as well as increased in-house and external training.

The Traffic Department

The Traffic Chief and her senior management benchmarked their organisation against the standard operating practices for traffic departments to identify current gaps, based on the National Road Traffic Law Enforcement Code (NRTLEC). The larger gaps identified were in the training and process management areas. The Traffic Supervisor was tasked with ensuring that officers are provided with training on areas of their functions that required attention. In relation to process management, a continuous improvement approach was recommended to be implemented in the areas of the issuance of notices in terms of the

section 56 of the Criminal Procedure Act 51 of 1977. One of the elements of this training was to put measures in place which demonstrated ongoing improvements achieved. In addition to these measures, actions were taken to address other organisational gaps and to expand new practices into wider use in the organisation. These projects have been successful as the results summarised below demonstrate:

Section 56 of Criminal Procedure Act 51 of 1977:

- Improvements were achieved in the descriptions of the offence due to insertion of the charge codes instead of narrative descriptions.
- Significant improvements were achieved in the recording of personal particulars due to the identification of offenders through drivers' licences numbers in addition to the personal identification numbers.
- Introduction of the hand-held electronic capturing of the section 56 offences through scanning of the motor vehicle licence, the drivers' licence as well as the charge description barcodes.

Section 341 of Criminal Procedure Act 51 of 1977:

- Rejection rates of infringements data were significantly reduced as a result of further training in the setting up of the speed camera.
- Improvement of accurate location coding as a result of the new geo-location capability within the speed cameras.

Addressing other organisational gaps:

- Involvement of all officers in the redesign of the training modules required for improvements.
- Service performance was closely linked with salary reviews.
- Quality service visibly advocated and promoted by the traffic Chief.
- Once these improvement initiatives were implemented, the traffic department focussed more on ensuring that they achieve low rejection rates on all infringements.

Traffic Court/Prosecution

Following the interorganisational group meetings, the prosecution representative engaged the magistrate of the local court to establish possible interventions required for the successful prosecution of traffic fines. With the improved interpersonal relationship between the directorate of public prosecution and the magistrate, it was agreed that in order to facilitate the effective prosecution of traffic offences, a flexible and innovative approach was required. This meant that the court proceedings would prioritise traffic offences in the morning, with the purpose of dispensing of all traffic related matters before attending to criminal matters. The initiatives have also been successful as the results summarised below demonstrate:

- The court roll on traffic fines was posted on the court notice board, an hour before the commencement of the proceedings.
- The offenders used the information on the notice board to approach the prosecutor to deal with their cases and finalise same out-of-court.

- The prosecutor dealing with out-of-court fine-reduction settlements while the magistrate signs summonses and attending to other administrative work.
- Improved turn-around time
- Better coordination between by-law prosecutors and enforcers.

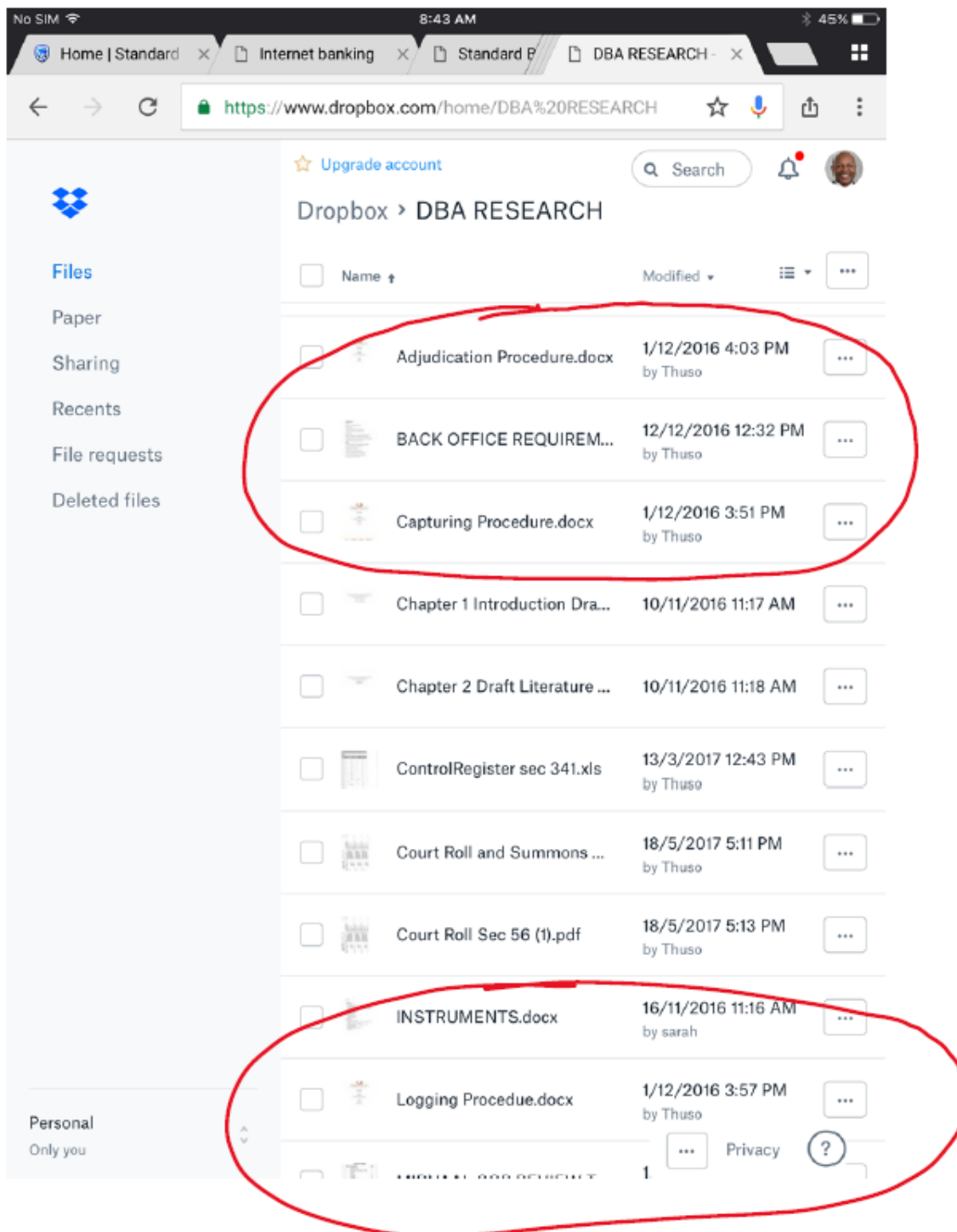
Impact of these improvements and reflections:

These changes in both core and enabling areas led to improvements along the three dimensions of learning and improvements, quality of infringement documentation and improvement to external perceptions. The improvements to external perceptions were reflected in the rate of electronic payments of fines as ticketed offenders had more options to pay their traffic fines. The improved ability of the employees to learn and improve was reflected in their addressing of problem areas with inputs from cross-functional supervisory teams. In a corresponding manner, the traffic officers demonstrated improved commitment to operate the cameras while the prosecuting authority reflected their improved attitude by allowing more cases to be enrolled to the subsequent court proceedings.

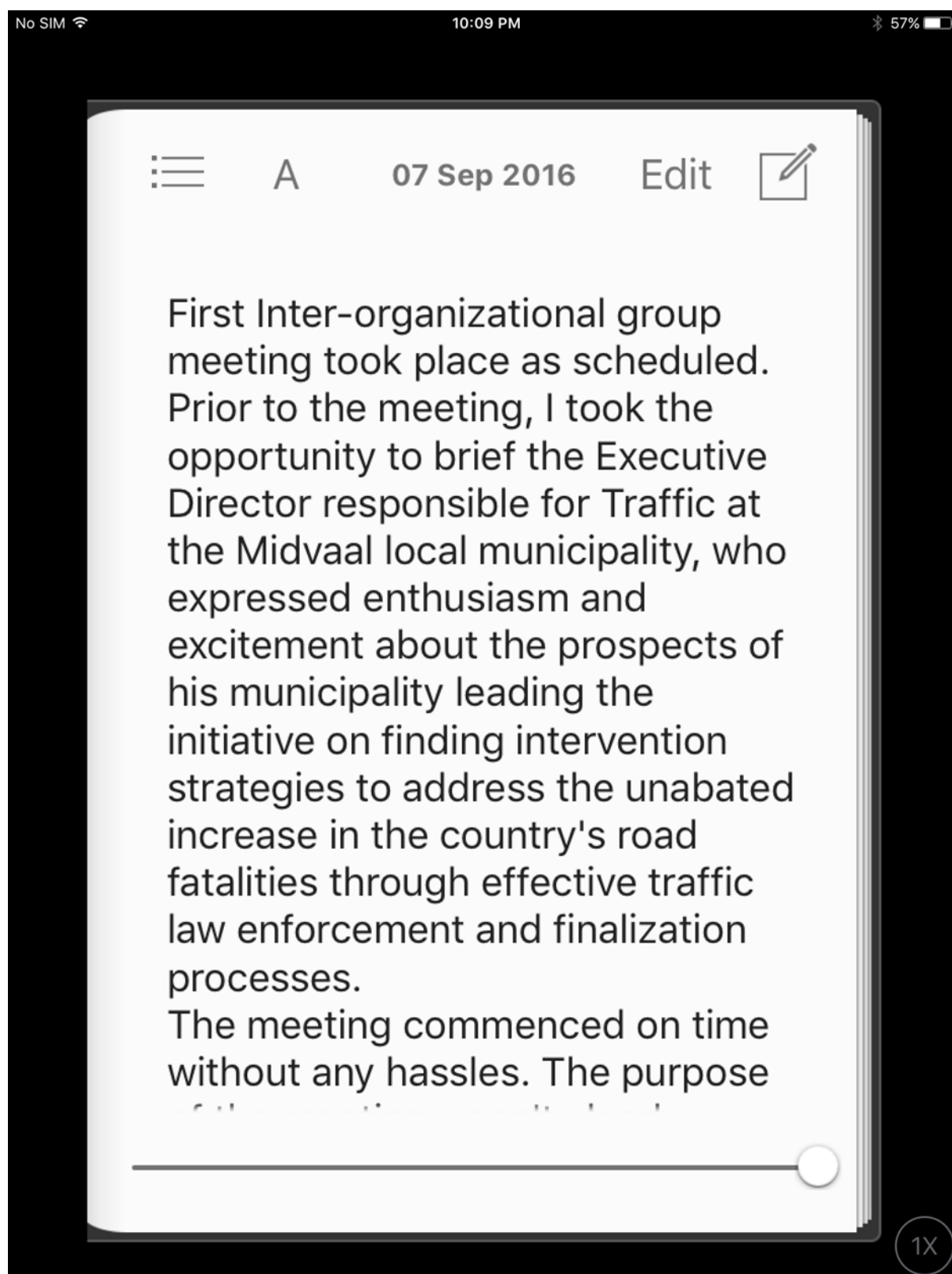
Appendix H EXTRACT FROM FORMAL MINUTES OF THE LEARNING SET

DBA RESEARCH GROUP MEETING: 24 November 2016			
Date	24 November 2016		
Subject	DBA research		
Venue	Midvaal protection service Boardroom		
Start time	14:00	End Time	15:30
Chairman	Albert Mokoena	Minute Taker	
ATTENDANCE			
Attendees		Apologies	
Albert Mokoena (AM)			
(TM)		(TM)	
(PM)		(OM)	
(ST)			
(BM)			
(AB)			
(BT)			
(AM02)			
MINUTES			
No.	Action Points	Person(s) Responsible	Target
1.	Previous minutes <ul style="list-style-type: none">➤ Group members expressed that they have issues in accessing dropbox where we share our findings.➤ They have issues of internet and the computers they are currently using do not allow them to download dropbox.➤ Private company suggested to meet in the mornings close to a computer that allow them to have access of internet	TM BM	
AGENDA			
2.	Issues on court rolls <ul style="list-style-type: none">➤ It has been noted that court rolls gets delayed in court.➤ Prosecutor mentioned that they have one magistrate officer at their local court and same magistrate must also handle other cases like criminal cases.➤ Prosecutor also mentioned that traffic departments must avoid bringing bigger court rolls.➤ Superintendent mentioned that court rolls are bigger because lot of motorists surrounding Midvaal➤ Private company suggested to court to give two court		

Appendix I SAMPLE SCREEN FROM SHARED DROPBOX FOLDER



Appendix J SAMPLE ELECTRONIC RECORD (RESEARCH JOURNAL)



Appendix K ETHICS APPROVAL FROM UNIVERSITY OF LIVERPOOL



Foundation Building
Brownlow Hill
Liverpool
L69 7ZX

T +44(0) 151 794 8929

F +44(0) 151 794 2280

www.liverpool.ac.uk

19th July 2016

Dear Albert Mokoena,

I am pleased to inform you that the DBA Ethics Committee has approved your application for ethical approval for your study. Details and conditions of the approval can be found below:

Committee Name: DBA Ethics Committee

Title of Study: *"Improvement of traffic law compliance in South Africa"*

Student Investigator: Albert Mokoena

School/Institute: School of Management

Approval Date: 27th June 2016

The application was APPROVED subject to the following conditions:

- The researchers must obtain ethical approval from a local research ethics committee if this is an international study
- University of Liverpool approval is subject to compliance with all relevant national legislative requirements if this is an international study.
- All serious adverse events must be reported to the Sub-Committee within 24 hours of their occurrence, via the Research Integrity and Governance Officer (ethics@liv.ac.uk)
- If it is proposed to make an amendment to the research, you should notify the Committee of the amendment.

This approval applies to the duration of the research. If it is proposed to extend the duration of the study as specified in the application form, the Committee should be notified. Kind regards

A blue ink handwritten signature, appearing to read "Clare Rigg", written over a blue circular stamp.

Dr Clare Rigg

DBA Ethics Committee

University of Liverpool Management School in Partnership with Laureate Online Education

Appendix L THEMATIC ANALYSIS: FIRST STAGE THEMES AND RESEARCH QUESTIONS

EXTRACT OF STAGE 1 ANALYSIS SHEET

Topic ____ *Empirical RQ 1.1 - Which statutes govern the administration of traffic law offences?* ____

Observation	NALP aligned action	Source(s)	Reflections
<i>Although participants agreed to undertake this action of identifying relevant statutes, the gathering and submission of required documents took longer than anticipated.</i>	<i>Action 1 & 2</i>	<i>Dropbox</i>	<p><i>Following the introduction of e-communication, a number of various documents were posted to Dropbox. These ranged from organisational standard operating procedures to documents containing references to some Acts of Parliament. Since these are the early days of the LS engagements, I should take my time to sift through the Dropbox to sort document into appropriate categories.</i></p> <p><i>The involvement of the private company's IT Manager in the sifting facilitated the categorisation which would later be confirmed with the LS members</i></p>

Conclusion _ the LS developed a summary of the instruments and tools used in the three organisations for the administration of traffic offences. Each participant also shared the experiences they had during their internal organisational assessment of the instruments. They also tabled the lessons they learnt during the period and came up with possible solutions to difficulties that arose during the first action as they interacted with their colleagues from the other organisations. ____

EXTRACT OF STAGE 2 ANALYSIS SHEET

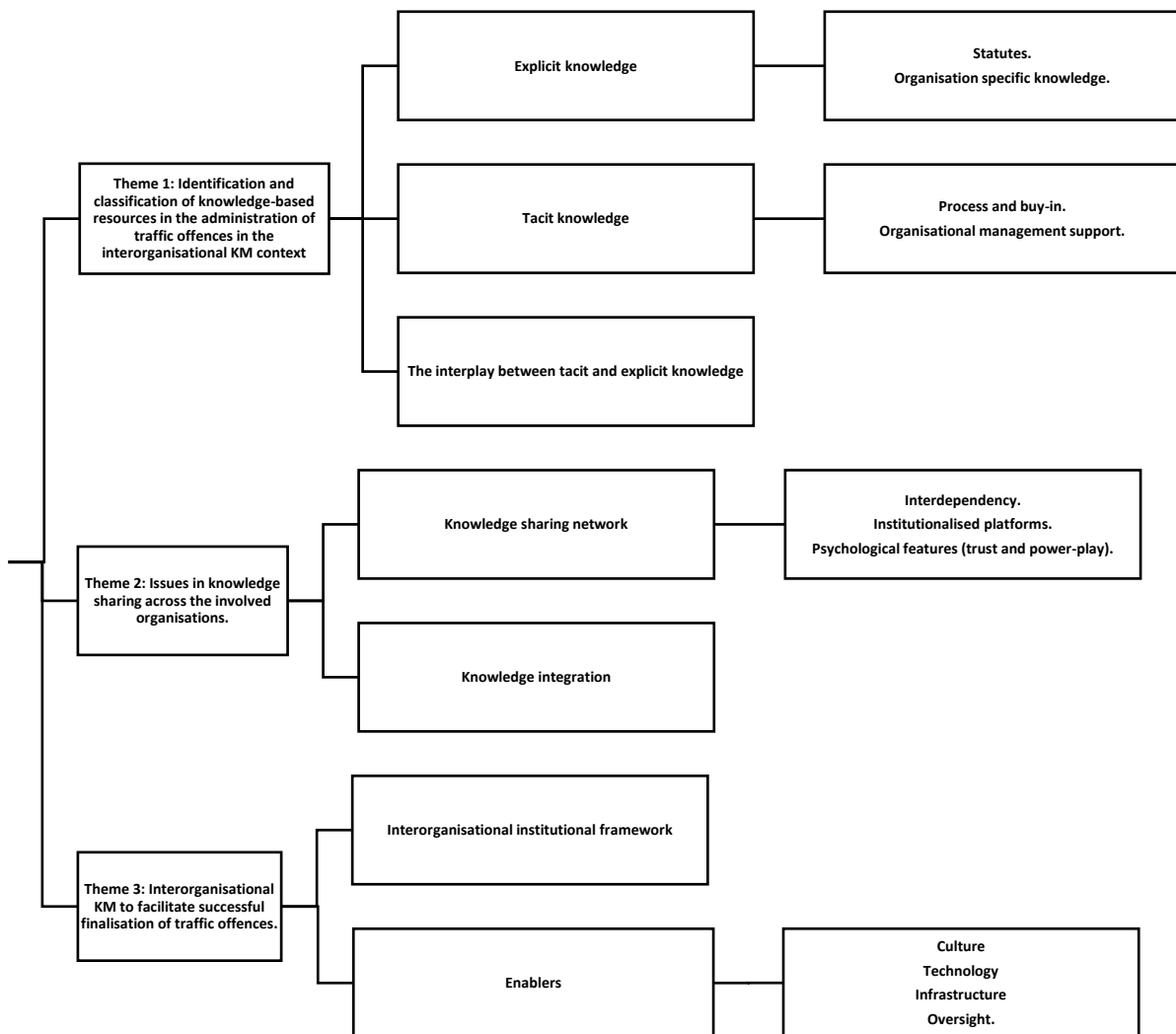
Topic ____ *Primary RQ 3 - How can interorganisational KM improve the successful finalisation of the administration of traffic offences?* ____

Observation	NALP aligned action	Source(s)	Reflections
<i>Each organisation's LS member engaged in the separate implementation and testing of the agreed interorganisational improvements mechanism, as it applied to their respective organisations. The LS members also identified, designed and implemented supplementary organisational improvements that would be necessary for the implementation of the intervention.</i>	<i>Action 5</i>	<i>LS presentations, minutes of meetings and electronic evidence on the private company's IT Manager's PC constituted the data befitting this research question.</i>	<i>The demonstrable seriousness by the LS during this action resulted in a detailed description of each individual organisation's actions that affirm the significance of interorganisational collaborations.</i>

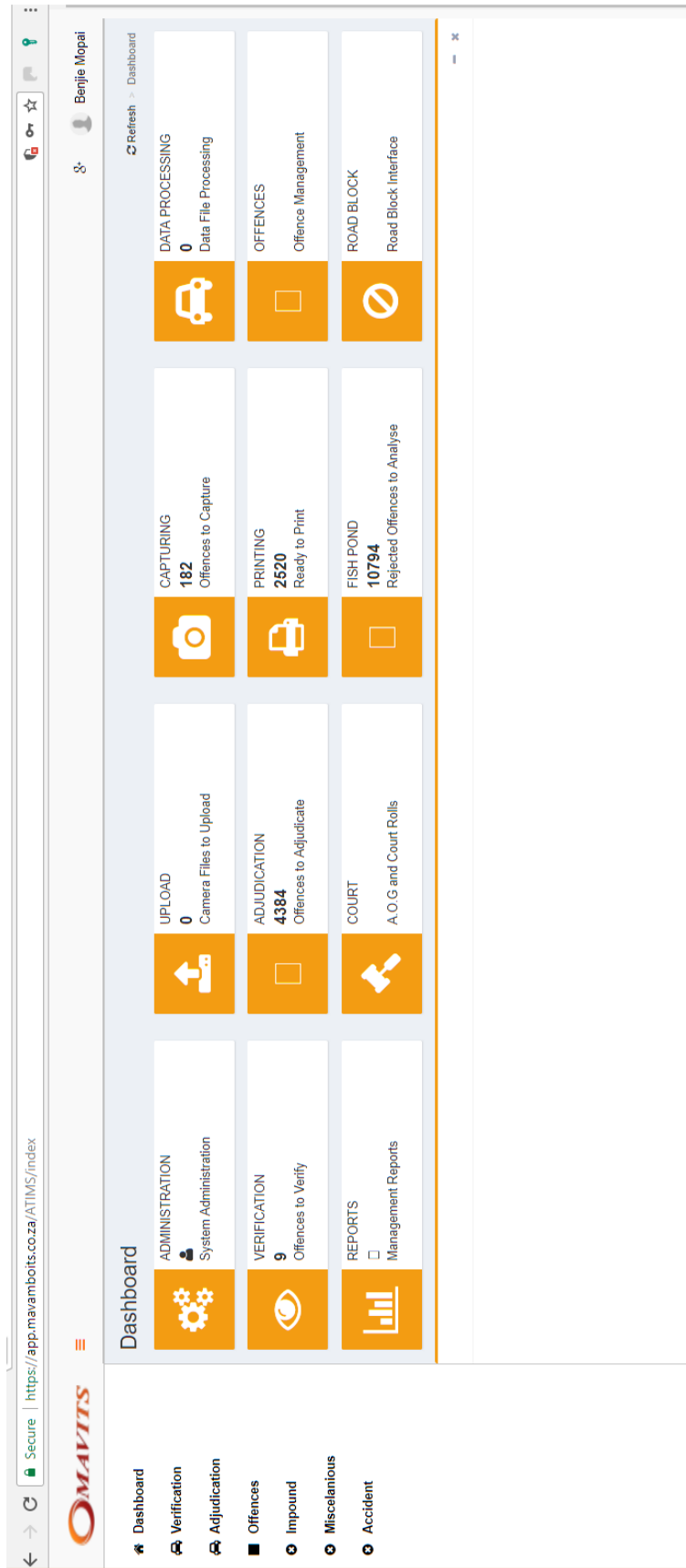
Conclusion _ *the constructive discussions regarding the selection of pilot cases was possible due to the realisation by the LS members that each organisation's actions were useful in building trust in the interorganisational KM process. The resultant decision for the institutionalisation of the oversight structure is the outcome of these actions.* ____

Appendix M THEMATIC ANALYSIS EXTRACT: THIRD STAGE

SUMMARY OF RESULTS



Appendix N THE REDESIGNED IT BACK-OFFICE SYSTEM



Appendix O MIDVAAL COURT DATE FIELD NOTES

Albert Mokoena

E1
Court reflection
and results

Contact Summary Form- Improvement of Traffic Law Compliance in South Africa Action Research

Contact type: Visit Learning Set
Phone Meeting
(with whom)

Site: MIDVAAL
Contact date: COURT
Today's date: 24 MAY
Written by:

1. What were the main issues or themes that struck you in this contact?

Attitude of prosecutors and
magistrate during court proceedings.

2. Summarize the information you got (or failed to get) on each of the target questions you had for this contact.

Question	Information
How will the Prosecutor address the magistrate	Prosecutors' attitudes were positive during the action learning process, thus it was important to assess whether the positivity would continue out court environment.

3. Anything else that struck you as salient, interesting, illuminating or important in this contact?

Court roll posted at all notice
boards

4. What new (or remaining) target questions do you have in considering the next contact with this site?

Source: Miles, M. B. & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Thousand Oaks, CA: Sage Publications.



Sage Publications, Inc.
© 2014

MAGISTRATE COURT, DISTRICT
MIDVAAL, HELD AT MEYERTON
26 May 2017

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Appendix Q IMPROVED TRAFFIC FINE NOTICE

NOTICE IN TERMS OF SEC 341
OF THE CRIMINAL PROCEDURE ACT NO 51 OF 1977

A TO: VAN EEDEN EJ AAN: 23 HERON DRIVE THREE RIVERS VEREENIGING 1930	Notice in terms of sec 341 of the Criminal Procedure act, act no 51 of 1977 Kennisgewing ingevolge art 341 van die Strafproseswet, wet 51 van 1977 Always refer to this Number MV/81/788648/184 Verwys altyd na hierdie Nommer  000148 20170424/0030D60DBAFE-0000136242																		
NOTICE / KENNISGEWING																			
B PLEASE BE ADVISED THAT YOUR VEHICLE WAS PHOTOGRAPHED COMMITTING THE OFFENCE AS SET OUT IN THIS COMPOUNDING NOTICE NEEM ASB KENNIS DAT U VOERTUIG GEFOTOGRAFEER IS TYDENS DIE PLEEG VAN DIE OORTREDING SOOS IN HIERDIE AFKOOPBOETEKENNISGEWING UITEENGEST IN THAT the accused is guilty of contravening DAT die beskuldigde skuldig is aan die oortreding van Art./Sect. 59(4)(b) g.m/r.w 57(9), 58(1), 58(2), 59(2), 69(1), 73, 89(1) & 89(3) van Wet/of Act 93 van/of 1996 & Reg. 284291 van die Nas. Padverkeersregulasies/of the Nat. Road Traffic Regulations 2000 In that the accused upon or about 24 Apr 2017 Te/Naby/Op At/Near/On R59 Between Joan Road and Randvaal Road a Place/public road in the district mentioned below wrongfully n Plek/openbare pad in die ondergemelde distrik wederegtelik as the driver of motor vehicle Toyota Hilux DY41RLGP exceeded the speed limit of 120 kilometres per hour, as was indicated in the prescribed manner on a road traffic sign, on a rural road, in that he or she drove at a speed of 137 kilometres per hour as bestuurder van motorvoertuig Toyota Hilux DY41RLGP die snelheidsgrens van 120 kilometer per uur, soos op die voorgeskrewe wyse op 'n padverkeersteken, buitestedelik, aangetoon was, oorskry het deur dat hy of sy teen 'n snelheid van 137 kilometer per uur gery het <div style="text-align: right;">Code/Kode: 86860 Insp No: V6</div>																			
C PAYMENT DATE / BETAALDATUM 02 Jun 2017	MAGISTERIAL DISTRICT / LANDDROSDISTRIK Midvaal																		
D Place where fine may be paid to avoid summons / Plek waar boete betaal kan word ten einde dagvaarding te vermy A fine in the amount of R 500 may be paid, in which case payment must be made on or before above mentioned payment date 'n Boete ten bedrae van kan betaal word, in welke geval betaling moet geskied voor of op bogenoemde betaaldatum Midvaal Traffic Department 08:00 - 15:00 Postal Details: P. BAG X1011 Meyerton 1960 Tel: 016 362 3816 / 3917 Fax: 086 566 1578 Email: midvaal@ifine.co.za																			
E Issued by / Uitgereik deur Midvaal Traffic Department Cnr. of Johan Le Roux & Galloway Str Meyerton 1960 Date / Datum : 18 Nov 2017 BANKING DETAILS / BANKBESONDERHEDE Acc Name: Midvaal Local Municipality Bank: AB SA Acc No: 4091943582 Branch Code: 632005 REFERENCE / VERWYSING MV/81/788648/184																			
F <div style="display: flex; align-items: center;">  <table style="margin-left: 20px;"> <tr><td>Date Of Offence:</td><td>24 Apr 2017</td></tr> <tr><td>Time Of Offence:</td><td>10:10</td></tr> <tr><td>Location:</td><td>000148</td></tr> <tr><td>Zone:</td><td>120 km/h</td></tr> <tr><td>Speed:</td><td>137 km/h</td></tr> <tr><td>Officer:</td><td>V6</td></tr> <tr><td>Veh Registration:</td><td>DY41RLGP</td></tr> <tr><td>ID Number:</td><td>6811115009080</td></tr> <tr><td>First Print Date:</td><td>03 May 2017</td></tr> </table> </div>		Date Of Offence:	24 Apr 2017	Time Of Offence:	10:10	Location:	000148	Zone:	120 km/h	Speed:	137 km/h	Officer:	V6	Veh Registration:	DY41RLGP	ID Number:	6811115009080	First Print Date:	03 May 2017
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KENNISGEWING INGEVOLGE ART 341 VAN DIE
STRAFPROSES WET NO 51 VAN 1977

KENNISGEWING INGEVOLGE ART 341 VAN DIE
STRAFPROSES WET NO 51 VAN 1977

NOTICE IN TERMS OF SEC 341
OF THE CRIMINAL PROCEDURE ACT NO 51 OF 1977

**Appendix R CAMERA OPERATOR CERTIFICATE ISSUED TO
TRAFFIC OFFICERS**

 **MAVAMBO ITS**

Operator Certificate

NAME: [REDACTED]

ID: [REDACTED]

MIDVAAL TRAFFIC DEPARTMENT

has been certified to operate the following equipment in terms of the requirements of the TCSP Guidelines for
Speed Measuring Equipment (2012) as Amended.

"Radarlux Tempocam III " Digital Mobile Radar Speed Camera"

Description: Class C Radar Speed Measuring device with Digital Infringement Recording in accordance with SANS 1795

Issuing Authority: Mavambo ITS

Date of Issue: 11 February 2017

Issued By: Frans Johannes Olivier

Appendix S ISSUING AUTHORITY'S WEBSITE SHOWING NEW OPTION TO PAY BY ELECTRONIC FUNDS TRANSFER (EFT)

